REGIONAL MULTIPLIERS:

A User Handbook for the Regional Input-Output Modeling System (RIMS II)

May 1986

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This handbook of regional output, earnings, and employment multipliers was prepared by Richard M. Beemiller, Zoe O. Ambargis, and Howard L. Friedenberg under the general guidance of Daniel H. Garnick, Associate Director for Regional Economics of the Bureau of Economic Analysis (BEA) and under the direction of Hugh W. Knox, Chief of the Regional Economic Analysis Division (READ).

READ has a continuing research program to develop improved techniques for analyzing the regional economic impacts of projects and programs. In the early 1970's, READ developed a method known as the Regional Industrial Multiplier System (RIMS) for estimating regional input-output multipliers. The RIMS methodology was based on the work of Daniel H. Garnick and Ronald L. Drake. Further development, under the guidance of A. Ray Grimes and based on the work of Joseph V. Cartwright and Richard M. Beemiller, resulted in an enhanced method known as the Regional Input-Output Modeling System (RIMS II). The multipliers in this handbook were produced with RIMS II.

In recognition of the potential usefulness of RIMS II multipliers for developing strategies for State and local area economic development, as well as for analyzing the impacts of economic development projects, the Economic Development Administration (EDA) of the U.S. Department of Commerce sponsored the publication of this handbook for RIMS II users.

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I. Introduction

Effective planning for public- and private-sector projects and programs at the State and local area level requires systematic analysis of the economic impacts of the projects and programs on affected regions. Systematic analysis of economic impacts, in turn, must take into account interindustry relationships within regions because those relationships in large part determine regional responses to project and program changes. Thus, regional input-output (I-O) multipliers, which account for interindustry relationships within regions, are useful tools for regional economic impact analysis.

In the mid-1970's, the Bureau of Economic Analysis (BEA) completed development of a method for estimating regional I-O multipliers known as RIMS (Regional Industrial Multiplier System), which was based on the work of Garnick and Drake./1/ More recently, BEA completed an enhancement of RIMS known as RIMS II (Regional Input-Output Modeling System)./2/

RIMS II is based on an accounting framework called an I-O table. An I-O table shows, for each industry, industrial distributions of inputs purchased and outputs sold. A typical I-O table in RIMS II derives mainly from two data sources: (1) BEA's national I-O table, which shows the input and output structure of more than 500 U.S. industries, and (2) BEA's four-digit Standard Industrial Classification (SIC) county wage-and-salary data, which can be used to adjust the national I-O table to show a region's industrial structure and trading patterns./3/

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1. See Daniel H. Garnick, "Differential Regional Multiplier Models," Journal of Regional Science 10 (February 1970): 35-47; and Ronald L. Drake, "A Short-Cut to Estimates of Regional Input-Output Multipliers," International Regional Science Review 1 (Fall 1976): 1-17.

2. See U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II): Estimation, Evaluation, and Application of a Disaggregated Regional Impact Model (Washington, DC: U.S. Government Printing Office, 1981). Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; order no. PB-82-168-865; price $16.

3. See U.S. Department of Commerce, Bureau of Economic Analysis, The Detailed Input-Output Structure of the U.S. Economy, 1977, Volume II (Washington, DC: U.S. Government Printing Office, 1984); and U.S. Department of Commerce, Bureau of Economic Analysis, State Personal Income: Estimates for 1929-82 and a Statement of Sources and Methods (Washington, DC: U.S. Government Printing Office, 1984).

The main data sources for RIMS II permit economic impacts to be estimated for any region composed of one or more counties and for any industry in the national I-O table. This handbook presents multipliers for States. The accessibility of the main data sources for RIMS II keeps the cost of estimating regional multipliers relatively low. Moreover, empirical tests show that estimates based on relatively expensive surveys and RIMS II-based estimates are similar in magnitude./4/

RIMS II can be used to estimate the impacts of project and program expenditures by industry on regional output (gross receipts or sales), earnings (the sum of wages and salaries, proprietors' income, and other labor income, less employer contributions to private pension and welfare funds), and employment. In the public sector, Federal, State, and local planners and analysts use RIMS II to estimate regional impacts. For example, the Department of Defense (DOD) uses RIMS II to estimate the regional impacts of changes in defense expenditures; and the New York State Energy Office uses RIMS II to estimate the regional impacts of energy policies, ranging from the construction of facilities to energy conservation. Private-sector analysts, consultants, and economic development practitioners use RIMS II to estimate the regional impacts of a variety of projects, ranging from offshore drilling to the construction of transportation facilities.

Effective use of I-O multipliers from RIMS II requires (1) proper interpretation of the I-O relationships and (2) information from planners and analysts on the geographic and industrial patterns of the project or program expenditures under study. Chapter II of this handbook discusses what the I-O multipliers mean, using nontechnical language and simplified accounting. Chapter III discusses the expenditures information that users of RIMS II must provide. Chapter IV contains three hypothetical case studies that illustrate the effective use of the multipliers. The studies focus on estimating the regional economic impacts of (1) building a factory and operating it, (2) increasing expenditures by tourists, and (3) shutting down a military base. Chapter V contains a RIMS II reading list.

Two series (A-1 and A-2) of tables of I-O multipliers are available from RIMS II; series A-1 is for detailed industries, and series A-2 is for industry aggregations. Each series consists of tables of I-O multipliers for output (A-1.1 and A-2.1), earnings (A-1.2 and A-2.2), and employment (A-1.3 and A-2.3), and a summary of output, earnings, and employment (A-1.4 and A-2.4). Samples of tables A-1.1, A-2.1, A-2.2, A-2.3, and A-2.4 for the State of Louisiana are in appendix A. Summary tables, corresponding to table A-2.4, for all 50 States plus the District of Columbia are in appendix B. Planners and analysts can use the tables to estimate the impacts of project or program expenditures on output, earnings, and employment. A list of the detailed industries in series A-1 is in appendix C, and a list of the industry aggregations in series A-2 is in appendix D.

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4. See U.S. Department of Commerce, Regional Input-Output Modeling System (RIMS II), chapter 5.

II. Output, Earnings, and Employment Multipliers From RIMS II

To help planners and analysts estimate the impacts of project and program expenditures by industry on regional output, earnings, and employment, BEA makes available from RIMS II a set of tables of I-O multipliers (see appendix A). This chapter briefly explains the meaning of the I-O multipliers, starting with an explanation of direct requirements coefficients./1/

Direct Requirements Coefficients

Direct requirements coefficients for a given industry in a region show the inputs of goods and services from the region's industries that the given industry requires to produce a dollar of output. Table II.1 shows direct requirements coefficients for a hypothetical region having five industries, including households./2/ (The data in this table and succeeding tables are for illustrative purposes only.) Column 1, for example, shows that to produce a dollar of output, industry 1 requires (1) 6 cents of inputs from regional firms in the same industry, (2) 12 cents, 8 cents, and 3 cents of inputs, respectively, from industries 2 through 4, and (3) 18 cents of labor inputs from households.

Direct requirements coefficients for industry 1 can be viewed as estimates of the dollar changes in output, for each additional dollar of output of industry 1, that occur in regional industries from which industry 1 purchases inputs. These changes typically are called first-round, or direct, changes in output. Per dollar of output of industry 1, direct changes in output total 47 cents (the sum of the entries in column 1).

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1. More comprehensive discussions of I-O multipliers can be found in: William H. Miernyk, The Elements of Input-Output Analysis (New York: Random House, 1965); Ronald E. Miller and Peter D. Blair, Input-Output Analysis: Foundations and Extensions (Englewood Cliffs, New Jersey: Prentice-Hall, 1985); Harry W. Richardson, Input-Output and Regional Economics (New York: John Wiley and Sons, 1972); and W.A. Schaffer, ed., On the Use of Input-Output Models for Regional Planning, Vol. 1 of Studies in Applied Regional Science (Leiden, the Netherlands: Martinus Nijhoff, 1976).

2. Regional I-O multipliers account more fully for the regional economic repercussions of project and program expenditures if households are included as an industry. For more information, see the references in the preceding footnote.

Table II.1.--Industry-by-Industry Direct Requirements for a Hypothetical Region

[Direct requirements from regional industries per dollar of industry output]

	Purchasing industry				
	1	2	3	4	Households
1.....	0.06	0.15	0.06	0.08	0.08
2.....	.12	.02	.10	.03	.10
3.....	.08	.08	.09	.02	.12
4.....	.03	0	.04	.06	.11
Households.....	.18	.23	.13	.10	.06

NOTE.--Each entry represents the input required directly from the row industry for each dollar of output of the column industry.

Total Requirements Coefficients

Compared with direct requirements coefficients, total requirements coefficients for a given industry in a region account more fully for the regional economic repercussions of producing a dollar of output of the given industry. Total requirements coefficients, which are expressed per dollar of output delivered to final demand (that is, to ultimate purchasers, such as consumers outside the region), reflect (1) the initial dollar of final demand for the output of the given industry, (2) direct requirements coefficients (see above), and (3) indirect requirements coefficients. Indirect requirements coefficients for a given industry in a region reflect (1) the regional production required to produce the given industry's direct requirements and (2) the regional production required to meet consumer demand generated by payments from the given industry to households for their labor inputs.

Table II.2 shows total requirements coefficients for the industries from table II.1./3/ Column 1 shows, for example, that to deliver a dollar of output to final demand, industry 1 requires, both directly and indirectly, (1) $1.14 of output from regional firms in the same industry (the initial dollar of final demand for the output of industry 1, plus an additional 14 cents of output) and (2) 19 cents, 16 cents, and 8 cents of output, respectively, from industries 2 through 4. The output that industry 1 requires from itself and from industries 2 through 4 includes earnings paid to households employed in industries 1

3. The mathematical derivation of a table of total requirements coefficients from a table of direct requirements coefficients is in U.S. Department of Commerce, Regional Input-Output Modeling System (RIMS II), chapter 4.

Table II.2.--Industry-by-Industry Total Requirements for a Hypothetical Region

[Total requirements, direct and indirect, from regional industries per dollar of output delivered to final demand]

	Purchasing industry				
	1	2	3	4	Households
1.....	1.14	0.22	0.13	0.12	0.15
2.....	.19	1.10	.16	.07	.16
3.....	.16	.16	1.16	.06	.19
4.....	.08	.05	.08	1.09	.15
Households.....	.29	.34	.23	.17	1.17
Total/1/.....	1.57	1.53	1.53	1.34	.65

1. Excludes entries in households row.

NOTE.--Each entry represents the output required, directly and indirectly, from the row industry for each dollar of output delivered to final demand by the column industry.

through 4. The fifth entry in column 1 is a summation of earnings paid to households; it shows that to deliver a dollar of output to final demand, industry 1 requires, both directly and indirectly, 29 cents of labor from households employed in industries 1 through 4.

Total requirements coefficients for industry 1 can be viewed as estimates of the total (direct and indirect) changes in output that occur in the region's industries for each additional dollar of output of industry 1 delivered to final demand. Because they are dollar multiples of the initial dollar spent for the output of industry 1, total changes in output often are called output multipliers. For industry 1, the total (all-industry) output multiplier is $1.57 (the sum of the first four entries in column 1).

Appendix A contains sample tables (A-1.1 and A-2.1) of output multipliers available from RIMS II for Louisiana. The entries in table A-1.1 are the dollar changes in output that occur in 39 row industries per dollar of output delivered to final demand by 531 column industries. (Appendix C identifies the 531 industries.) The entries in table A-2.1, which are aggregations of the entries in table A-1.1, are the dollar changes in output that occur in 39 row industries per dollar of output delivered to final demand by the same 39 column industries. (Appendix D shows the distribution of the 531 industries among the 39 industry aggregations.)

Earnings Multipliers

Earnings multipliers for a given industry in a region show the earnings that the given industry pays, both directly and indirectly, to households employed in regional industries to deliver a dollar of output to final demand. Table II.3 shows earnings multipliers for the industries from tables II.1 and II.2. Column 1 shows, for example, that in order for industry 1 to deliver a dollar of output to final demand, regional firms must pay both directly and indirectly (1) 20 cents of earnings to households employed in the same industry, (2) 4 cents, 2 cents, and 1 cent of earnings, respectively, to households employed in industries 2 through 4, and (3) 2 cents of earnings to household employees./4/

Table II.3.--Industry-by-Industry Earnings Multipliers for a Hypothetical Region

[Earnings, direct and indirect, per dollar of output delivered to final demand]

	Purchasing industry				
	1	2	3	4	Households
1.....	0.20	0.04	0.02	0.02	0.03
2.....	.04	.25	.04	.02	.04
3.....	.02	.02	.15	.01	.02
4.....	.01	.01	.01	.11	.02
Households.....	.02	.02	.01	.01	.06
Total.....	.29	.34	.23	.17	.17

NOTE.--Each entry represents the earnings paid, directly and indirectly, to the households employed by the row industry for each dollar of output delivered to final demand by the column industry.

Earnings multipliers for industry 1 can be viewed as estimates of the total (direct and indirect) dollar changes in earnings that occur in households employed by regional industries for each additional dollar of output of industry 1 delivered to final demand. For industry 1, the total (all-industry) earnings multiplier is 29 cents (the sum of the entries in column 1)./5/

Appendix A contains a sample table (A-2.2) of earnings multipliers available from RIMS II for Louisiana. The entries in table A-2.2 are the changes in earnings that occur in the households employed by 39 row industries

4. Each column of table II.3 is derived by multiplying, in succession, each column entry in table II.2 by each entry in the households row of table II.1.

5. This total corresponds to the households entry in column 1 of table II.2.

per dollar of output delivered to final demand by the same 39 column industries. A similar table (A-1.2, not shown), with entries showing the changes in earnings that occur in the households employed by 39 row industries per dollar of output delivered to final demand by 531 column industries, also is available from RIMS II. The entries in table A-2.2 are aggregations of the entries in table A-1.2.

Employment Multipliers

Employment multipliers for a given industry in a region show the number of jobs that regional industries provide, both directly and indirectly, in order for the given industry to deliver 1 million dollars of output to final demand./6/ Table II.4 shows employment multipliers for the industries from tables II.1-II.3. Column 1 shows, for example, that in order for industry 1 to deliver 1 million dollars of output to final demand, regional firms must provide (1) 18 jobs in the same industry, (2) 3 jobs, 1 job, and 0 jobs, respectively, in industries 2 through 4, and (3) 0 jobs in domestic employment./7/

Table II.4.--Industry-by-Industry Employment Multipliers for a Hypothetical Region

[Number of jobs, direct and indirect, per 1 million dollars of output delivered to final demand]

	Purchasing industry				
	1	2	3	4	Households
1.....	18	4	2	2	3
2.....	3	18	3	1	3
3.....	1	1	9	1	1
4.....	0	0	0	6	1
Households.....	0	0	0	0	1
Total.....	22	23	14	10	9

NOTE.--Each entry represents the number of jobs provided, directly and indirectly, by the row industry for each 1 million dollars of output delivered to final demand by the column industry.

6. Output is expressed per million dollars, rather than per dollar, to minimize cases in which the number of jobs is less than 1.

7. Column 1 of table II.4 is derived by multiplying each entry in column 1 of table II.3 by the corresponding ratio of employment to earnings from BEA's two-digit-SIC State employment and earnings data. For the underlying data, see U.S. Department of Commerce, Bureau of Economic Analysis, 1985 OBERS, BEA Regional Projections, State Projections to 2035 (Washington, DC: U.S. Government Printing Office, 1985); order no. 003-010-00157-7; price $4.75.

Employment multipliers for industry 1 can be viewed as estimates of the total (direct and indirect) changes in number of jobs that occur in regional industries for each additional 1 million dollars of output of industry 1 delivered to final demand. For industry 1, the total (all-industry) employment multiplier is 22 jobs (the sum of the entries in column 1).

Appendix A contains a sample table (A-2.3) of employment multipliers available from RIMS II for Louisiana. The entries in table A-2.3 are the changes in number of jobs that occur in 39 row industries per 1 million dollars of output delivered to final demand by the same 39 column industries. A similar table (A-1.3, not shown), with entries showing the changes in number of jobs that occur in 39 row industries per 1 million dollars of output delivered to final demand by 531 column industries, also is available from RIMS II. The entries in table A-2.3 are aggregations of the entries in table A-1.3.

Total Multipliers for Output, Earnings, and Employment

Appendix A also contains a sample table (A-2.4) of total (all-industry) multipliers for output, earnings, and employment, available from RIMS II for Louisiana. Each entry in table A-2.4 is a sum of changes that occur in all row industries for each additional dollar (or, in the case of employment, 1 million dollars) of output delivered to final demand by the industry corresponding to the entry. Appendix B contains copies of tables corresponding to A-2.4 for all States, plus the District of Columbia. A similar table (A-1.4, not shown), with each of 531 line entries showing a sum of changes that occur in 531 industries for each additional dollar (or 1 million dollars) of output delivered to final demand by the industry numerical designation corresponding to the entry, also is available from RIMS II.

Availability of Regional Multipliers From RIMS II

For any region composed of one or more counties, RIMS II can provide two series of tables of I-O multipliers; series A-1 is for detailed industries, and series A-2 is for industry aggregations. Each series consists of four tables of multipliers, one table each for output, earnings, employment, and a summary. To order the tables, contact the Analysis Branch, Regional Economic Analysis Division, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230 (phone 202-523-0528 or -0594). Prices of tables (two series per region) are on a descending scale, starting at $1,500 per region for the first region ordered.

III. Information Required From Users of RIMS II

The preceding chapter explains the meaning of the multipliers from RIMS II that appear in appendixes A and B. Proper use of the multipliers to estimate the regional economic impacts of project and program expenditures requires conversion of the expenditures to changes in output delivered to final demand (hereafter referred to as "final-demand changes") in industries in regions. Final-demand changes in an industry in a region reflect purchases of goods and services, typically by consumers and businesses outside the region, by investors, and by government. The delivery of the final goods and services ends successive rounds of repercussions on the output of the region's industries. This chapter discusses information that users of RIMS II must supply for converting expenditures into final-demand changes in regional industries.

Users must decide on the level of industrial detail to which to assign project and program expenditures. Suppose, for example, that users want to estimate the impact on output in Louisiana of a $100 million expenditure by the Federal Government for public works, divided evenly between the construction and the maintenance and repair of sewer facilities, highways, and streets. Users can view the expenditure as final-demand changes of $50 million each, occurring in 2 of the 39 industry aggregations in appendix D--that is, new construction (industry 6) and maintenance and repair construction (industry 7). The impact of the expenditure on output in Louisiana is obtained by multiplying each final-demand change--$50 million--by total multipliers for output for each of the two industry aggregations--2.1950 and 2.0947 (see table A-2.4, appendix A). Alternatively, users can view the expenditure as final-demand changes of $25 million each, occurring in 4 of the 531 detailed industries in appendix C--that is, new sewer facilities construction (industry 11.0307), new highways and streets construction (11.0400), maintenance and repair of sewer facilities (12.0210), and maintenance and repair of highways and streets (12.0214). In this case, the impact of the expenditure on output in Louisiana is obtained by multiplying each final-demand change--$25 million --by total multipliers for output for each of the four detailed industries--2.3009, 2.2732, 2.1649, and 2.1167 (see totals for columns 11.0307, 11.0400, 12.0210, and 12.0214, table A-1.1, appendix A).

Users also must decide on the level of geographic detail at which to estimate the economic impacts of project and program expenditures. In some cases, users will choose a county grouping that already has been defined for planning purposes. For example, if users belong to an agency that plans for Louisiana, they might want estimates of the impacts of the expenditure on public works for the State as a whole (all parishes). In other cases, users will choose a county grouping that best approximates the region in which the

impacts mainly occur. For example, if the public works are to be built in Calcasieu Parish, users might want estimates of the impacts for a grouping of parishes, including Calcasieu, in which production of most of the direct and indirect requirements per dollar of public works construction occurs. Such a grouping might be the Lake Charles economic area, as defined by BEA; it consists of Calcasieu Parish (a metropolitan statistical area that serves as a center of trade) and five other parishes (Allen, Beauregard, Cameron, Jefferson Davis, and Vernon) that are economically related to the center./1/ As stated earlier, multipliers from RIMS II can be estimated for any region composed of one or more counties.

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1. See "The BEA Economic Areas: Structural Changes and Growth, 1950-73," Survey of Current Business 55 (November 1975): 14-25.

IV. Illustrative Uses of RIMS II: Case Studies

This chapter contains three case studies that illustrate how users of RIMS II can estimate the regional economic impacts of project and program expenditures, using multipliers from RIMS II (see chapter II) and information for converting expenditures into final-demand changes in industries in regions (see chapter III).

Case Study 1: Building a New Factory and Manufacturing Its Output

Suppose a firm that makes electric industrial controls (for example, motor starters) plans to invest $10 million to build a new factory in Louisiana. After completion of the factory, the firm plans to manufacture in its first year of operation $35 million worth of industrial controls for sale to businesses outside Louisiana. Both the investment in the factory and the export of industrial controls are changes in final demand. The completion of the factory and the delivery of the industrial controls end successive rounds of repercussions on the output of Louisiana's industries. Users want to estimate the impacts of the final-demand changes on Louisiana's economy.

Estimating the impacts of building the factory

Users must decide on the level of industrial detail to which to assign the building of the factory. They can view the building of the factory as a final-demand change of $10 million occurring in (1) the new construction industry as a whole (industry 6 in appendix D) or (2) the new industrial buildings construction industry (industry 11.0201 in appendix C). Assume that they choose the new construction industry as a whole.

Table IV.1 shows the derivation of estimates of the impacts of building the factory, using multipliers from RIMS II. Column 1 reproduces column 6, table A-2.1, from appendix A. Each entry in column 1 is the dollar change in output that occurs in each row industry for each additional dollar of output delivered to final demand by the new construction industry. To obtain the dollar impact on the output of each row industry of an additional $10 million of output delivered to final demand by the new construction industry, multiply each entry in column 1 by $10 million. Column 4 shows the resulting impacts; the column total--$21.9 million--is the dollar impact on the output of all industries.

Column 2 reproduces column 6, table A-2.2, from appendix A. Each entry in column 2 is the dollar change in earnings of households employed by each row industry for each additional dollar of output delivered to final demand by the new construction industry. To obtain the impact on earnings paid to households by each row industry of an additional $10 million of output

Table IV.1.--Multipliers, by Industry, for Output, Earnings, and Employment, and Impacts, by Industry, on Output, Earnings, and Employment of a $10 Million Change in Final Demand, New Construction Industry, Louisiana

		Multipliers			Impacts/4/		
		Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)	Output (thousands of dollars)	Earnings (thousands of dollars)	Employment (number of jobs)
		(1)	(2)	(3)	(4)	(5)	(6)
1	Agricultural products and agricultural, forestry, and fishery services.....	0.0118	0.0036	0.4	118	36	4
2	Forestry and fishery products.....	.0075	.0024	.3	75	24	3
3	Coal mining.....	0	0	0	0	0	0
4	Crude petroleum and natural gas.....	.0228	.0023	.1	228	23	1
5	Miscellaneous mining.....	.0055	.0013	.1	55	13	1
6	New construction.....	1.0000	.3448	15.9	10,000	3,448	159
7	Maintenance and repair construction.....	.0230	.0106	.5	230	106	5
8	Food and kindred products and tobacco.....	.0307	.0036	.2	307	36	2
9	Textile mill products.....	.0005	.0001	0	5	1	0
10	Apparel.....	.0067	.0019	.2	67	19	2
11	Paper and allied products..	.0059	.0012	0	59	12	0
12	Printing and publishing....	.0057	.0020	.1	57	20	1
13	Chemicals and petroleum refining.....	.0706	.0054	.1	706	54	1
14	Rubber and leather products.....	.0025	.0006	0	25	6	0
15	Lumber and wood products and furniture.....	.0736	.0152	.9	736	152	9
16	Stone, clay, and glass products.....	.0577	.0150	.7	577	150	7
17	Primary metal industries...	.0089	.0015	0	89	15	0
18	Fabricated metal products..	.0520	.0134	.5	520	134	5
19	Machinery, except electrical.....	.0080	.0024	.1	80	24	1
20	Electric and electronic equipment.....	.0119	.0036	.1	119	36	1
21	Motor vehicles and equipment.....	.0077	.0009	0	77	9	0
22	Transportation equipment, except motor vehicles....	.0035	.0014	0	35	14	0
23	Instruments and related products.....	.0006	.0002	0	6	2	0
24	Miscellaneous manufacturing industries.....	.0016	.0004	0	16	4	0
25	Transportation.....	.0754	.0234	1.0	754	234	10
26	Communication.....	.0237	.0063	.2	237	63	2
27	Electric, gas, water and sanitary services.....	.0506	.0048	.1	506	48	1
28	Wholesale trade.....	.0997	.0390	1.8	997	390	18
29	Retail trade.....	.1214	.0603	4.8	1,214	603	48
30	Finance.....	.0263	.0082	.4	263	82	4
31	Insurance.....	.0227	.0095	.4	227	95	4
32	Real estate.....	.0993	.0028	.4	993	28	4

Table IV.1.--Multipliers, by Industry, for Output, Earnings, and Employment, and Impacts, by Industry, on Output, Earnings, and Employment of a $10 Million Change in Final Demand, New Construction Industry, Louisiana--Continued

	Multipliers			Impacts/4/		
	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)	Output (thousands of dollars)	Earnings (thousands of dollars)	Employment (number of jobs)
	(1)	(2)	(3)	(4)	(5)	(6)
33 Hotels and lodging places and amusements	0.0127	0.0041	0.4	127	41	4
34 Personal services	.0125	.0056	.6	125	56	6
35 Business services	.1091	.0529	3.4	1,091	529	34
36 Eating and drinking places	.0404	.0126	1.8	404	126	18
37 Health services	.0406	.0235	1.1	406	235	11
38 Miscellaneous services	.0418	.0159	.8	418	159	8
39 Households	.7055	.0027	.8	....	27	8
Total	**2.1950**	**.7055**	**38.4**	**21,950**	**7,055**	**384**

1. Each entry in column 1 represents the dollar change in output that occurs in each row industry for each additional dollar of output delivered to final demand by the new construction industry. The column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. The column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

2. Each entry in column 2 represents the dollar change in earnings of households employed by each row industry for each additional dollar of output delivered to final demand by the new construction industry. The column total equals the entry in row 39, column 1.

3. Each entry in column 3 represents the change in number of jobs in each row industry for each additional 1 million dollars of output delivered to final demand by the new construction industry.

4. For each row industry, the entries in columns 4, 5, and 6 are obtained by multiplying $10 million by the entries in columns 1, 2, and 3, respectively.

NOTE.--Column entries may not sum to totals due to rounding.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

delivered to final demand by the new construction industry, multiply each entry in column 2 by $10 million. Column 5 shows the resulting impacts; the column total--$7.1 million--is the impact on the earnings paid to households by all industries.

Column 3 reproduces column 6, table A-2.3, from appendix A. Each entry in column 3 shows the change in number of jobs in each row industry for each additional 1 million dollars of output delivered to final demand by the new construction industry. To estimate the impact on the number of jobs provided by each row industry of an additional $10 million of output delivered to final demand by the new construction industry, multiply each entry in column 3 by $10 million. Column 6 shows the resulting impacts; the column total--384 jobs--is the impact on the number of jobs provided by all industries.

The new construction industry consists of 36 detailed industries, ranging from new dams and reservoirs to new industrial buildings. Users have the option of viewing the building of the factory as a change in final demand for new industrial buildings, rather than new construction as a whole. Table IV.2 compares estimates of the impacts, based on total multipliers for new industrial buildings, with estimates from table IV.1, based on total multipliers for new construction./1/

Estimating the impacts of manufacturing the output of the factory

Planners can view the manufacturing of the output of the factory in the first year of operation as a final-demand change of $35 million occurring in (1) the electric and electronic equipment industry as a whole (industry 20 in appendix D) or (2) the industrial controls equipment industry (industry 53.0500 in appendix C). Table IV.3 shows the derivation of estimates of the impacts of manufacturing the output of the factory. The estimates are based on total multipliers from RIMS II for both the industry aggregation and the detailed industry./2/ When estimated for the industry aggregation, impacts total $64.1 million in output, $18.9 million in earnings, and 935 jobs. When estimated for the detailed industry, impacts total $63.0 million in output, $21.1 million in earnings, and 1,040 jobs.

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1. The total multiplier for output for new industrial buildings is the total for column 11.0201 in table A-1.1, appendix A.

2. The total multipliers for the industry aggregation are the totals for column 20 in tables A-2.1, A-2.2, and A-2.3, in appendix A; they are summarized in table A-2.4, appendix A, and in table B for Louisiana, appendix B. The total multiplier for output for the detailed industry is the total for column 53.0500 in table A-1.1, appendix A.

Table IV.2.--Total Multipliers for Output, Earnings, and Employment, and Impacts on Output, Earnings, and Employment of a $10 Million Change in Final Demand, Aggregated and Detailed Construction Industries, Louisiana

Construction industry	Multipliers			Impacts/4/		
	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)	Output (thousands of dollars)	Earnings (thousands of dollars)	Employment (number of jobs)
	(1)	(2)	(3)	(4)	(5)	(6)
New construction...	2.1950	0.7055	38.4	21,950	7,055	384
New industrial buildings.....	2.1230	.7463	39.8	21,230	7,463	398

1. Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the corresponding construction industry.
2. Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the corresponding construction industry.
3. Each entry in column 3 represents the total change in number of jobs in all industries for each additional 1 million dollars of output delivered to final demand by the corresponding construction industry.
4. For each construction industry, the entries in columns 4, 5, and 6 are obtained by multiplying $10 million by the entries in columns 1, 2, and 3, respectively.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table IV.3.--Total Multipliers for Output, Earnings, and Employment, and Impacts on Output, Earnings, and Employment of a $35 Million Change in Final Demand, Aggregated and Detailed Manufacturing Industries, Louisiana

Manufacturing industry	Multipliers			Impacts/4/		
	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)	Output (thousands of dollars)	Earnings (thousands of dollars)	Employment (number of jobs)
	(1)	(2)	(3)	(4)	(5)	(6)
Electric and electronic equipment.....	1.8323	0.5394	26.7	64,131	18,879	935
Industrial controls.....	1.7988	.6041	29.7	62,958	21,144	1,040

1. Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the corresponding manufacturing industry.
2. Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the corresponding manufacturing industry.
3. Each entry in column 3 represents the total change in number of jobs in all industries for each additional 1 million dollars of output delivered to final demand by the corresponding manufacturing industry.
4. For each manufacturing industry, the entries in columns 4, 5, and 6 are obtained by multiplying $35 million by the entries in columns 1, 2, and 3, respectively.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Case Study 2: Expenditures by Tourists

Suppose a State economic development agency estimates that next year expenditures by out-of-State tourists in Louisiana will increase by $4.7 billion, divided as follows:

	Millions of dollars
Public transportation	845
Automobile transportation	1,410
Retail goods	280
Lodging	570
Entertainment and recreation	375
Eating and drinking	1,220
Total	4,700

Users of RIMS II want to estimate the impacts of expenditures by tourists on Louisiana's economy.

The expenditures for transportation, retail goods, lodging, entertainment and recreation, and eating and drinking are changes in final demand. Delivery of these services to out-of-State tourists ends successive rounds of repercussions on the output of Louisiana's industries. The expenditure for retail goods reflects charges for the output of wholesalers, transporters, and manufacturers, as well as of retailers. Assume that the wholesalers and transporters, as well as the retailers, are located in Louisiana, and that the manufacturers are located outside Louisiana. Then, the charges for wholesale, retail, and transportation output (but not manufacturing output) are changes in final demand in Louisiana. (In input-output terms, wholesale and retail output, which is referred to as "margin," consists of operating expenses, profits, sales taxes, and excise taxes.) These final-demand changes can be estimated by multiplying the expenditure for retail goods ($280 million) by the percentage shares of national personal consumption expenditures in the category "other recreation" that are accounted for by the wholesale trade industry (0.6 percent), the retail trade industry (4.8 percent), and the transportation industry (0.5 percent)./3/ The resulting estimates are $2 million for wholesale trade, $13 million for retail trade, and $1 million for transportation.

Assuming that users choose to assign expenditures by tourists to industry aggregations from appendix D, users can view the expenditures as follows: (1) The sum of public and automobile transportation as a final-demand change of $2,255 million occurring in the transportation industry (industry 25 in appendix D), (2) the sum of lodging and entertainment and recreation as a final-demand change of $945 million in the hotels and lodging places and

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3. See table B, Detailed Input-Output Commodity Composition of Personal Consumption Expenditures, in Producers' and Purchasers' Prices, 1977, available from BEA's Interindustry Economics Division.

amusements industry (industry 33), (3) eating and drinking as a final-demand change of $1,220 million in the eating and drinking places industry (industry 36), and (4) retail goods as final-demand changes of $2 million in the wholesale trade industry (industry 28), $13 million in the retail trade industry (industry 29), and $1 million in the transportation industry (which must be added to the $2,255 million noted earlier). The sum of these final-demand changes is $4,436 million, or $264 million less than total expenditures by tourists. The difference equals the expenditure for retail goods ($280 million) minus the portion of the expenditure that is a final-demand change in Louisiana ($16 million).

Table IV.4 shows the derivation of estimates of the impacts of expenditures by tourists. The estimates are based on total multipliers from RIMS II for the tourist-related industries to which the final-demand changes are assigned./4/ For example, to estimate the impact on the output of all industries of an additional $1,220 million of services delivered to final demand by eating and drinking places, multiply $1,220 million by the total mutiplier for the output of eating and drinking places--1.9896. When summed for all tourist-related industries, impacts total $9,430 million in output, $2,827 million in earnings, and 204 thousand jobs.

Case Study 3: Shutting Down a Military Base

Suppose the Federal Government, in order to operate a military base in Calcasieu Parish, Louisiana, spends $11.3 million annually in Calcasieu and nearby parishes, divided among industries as follows:

	Thousands of dollars
Maintenance and repair construction	560
Manufacturing	4,045
Food and kindred products and tobacco	3,200
Apparel	10
Printing and publishing	45
Chemicals and petroleum refining	315
Fabricated metal products	205
Motor vehicles and equipment	235
Transportation equipment, except motor vehicles	20
Miscellaneous manufacturing industries	15
Communication	735
Electric, gas, water, and sanitary services	2,195
Business services	730
Miscellaneous services	120
Earnings paid to local residents	2,885
Total	11,270

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4. The total multipliers for the tourist-related industries are the totals for columns 25, 28, 29, 33, and 36, in tables A-2.1, A-2.2, and A-2.3, in appendix A; they are summarized in table A-2.4, appendix A, and in table B for Louisiana, appendix B.

Table IV.4.--Total Multipliers for Output, Earnings, and Employment, and Impacts on Output, Earnings, and Employment of a $4.4 Billion Change in Final Demand, Tourist-Related Industries, Louisiana

Tourist-related industry	Change in final demand (millions of dollars)	Multipliers			Impacts/4/		
		Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)	Output (millions of dollars)	Earnings (millions of dollars)	Employment (number of jobs)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Transportation.....	2,256	2.2919	0.6894	34.8	5,171	1,555	78,509
Wholesale trade.....	2	1.9016	.6616	35.7	4	1	71
Retail trade.....	13	1.9332	.7628	56.6	25	10	736
Hotels and lodging places and amusements.....	945	1.9075	.5852	51.6	1,803	553	48,762
Eating and drinking places.....	1,220	1.9896	.5801	62.4	2,427	708	76,128
Total.....	**4,436**	....	....	....	**9,430**	**2,827**	**204,206**

1. Each entry in column 2 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the corresponding tourist-related industry.
2. Each entry in column 3 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the corresponding tourist-related industry.
3. Each entry in column 4 represents the total change in number of jobs in all industries for each additional 1 million dollars of output delivered to final demand by the corresponding tourist-related industry.
4. For each tourist-related industry, the entries in columns 5, 6, and 7 are obtained by multiplying the entry in column 1 by the entries in columns 2, 3, and 4, respectively.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Users of RIMS II want to estimate the impacts of shutting down the base on the region where most of the impacts are expected to occur. Users choose the Lake Charles economic area as the region for analysis.

The expenditures for maintenance and repair construction; communication; electric, gas, water, and sanitary services; business services; miscellaneous services; and earnings paid to local residents are changes in final demand. The delivery of this final output to the Federal Government ends successive rounds of repercussions on the output of industries in Lake Charles. The expenditures for manufactured goods reflect charges for the output of wholesalers and transporters, as well as of manufacturers. Assume that the wholesalers, transporters, and manufacturers are located in Lake Charles. Then, the charges for wholesale, transportation, and manufacturing output are changes in final demand in Lake Charles. (In input-output terms, wholesale output, which is referred to as "margin," consists of operating expenses, profits, sales taxes, and excise taxes.) These final-demand changes can be estimated by multiplying the expenditure for each manufactured good by the percentage shares of the price paid for the good (as reflected in the Federal Government's defense budget) that are accounted for by wholesale margins, transportation costs, and producers' prices. For example, the final-demand changes associated with the expenditure for printing and publishing can be estimated by multiplying the expenditure ($45 thousand) by the shares of the price paid for printing and publishing that are accounted for by wholesale margins (5 percent), transportation costs (0 percent), and producers' prices (95 percent)./5/ The resulting estimates, which must sum to the total for manufacturing in the preceding listing, are as follows:

	Thousands of dollars
Wholesale trade	366
Transportation	74
Manufacturing	3,605
Food and kindred products and tobacco	2,831
Apparel	10
Printing and publishing	43
Chemicals and petroleum refining	286
Fabricated metal products	183
Motor vehicles and equipment	220
Transportation equipment, except motor vehicles	20
Miscellaneous manufacturing industries	12
Total	4,045

Assuming that users choose to assign the expenditures for operating the base to industry aggregations from appendix D, they can view the expenditures as the final-demand changes shown in table IV.5, column 1. Table IV.5 shows

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5. See Table A, Input-Output Commodity Composition of Final Demand, in Producers' and Purchasers' Prices, 1977, in "The Input-Output Structure of the U.S. Economy, 1977," Survey of Current Business 64 (May 1984): 42-84.

Table IV.5.--Total Multipliers for Output, Earnings, and Employment, and Impacts on Output, Earnings, and Employment of an $11.3 Million Change in Final Demand, Defense-Related Industries, Lake Charles Economic Area

Defense-related industry	Change in final demand (thousands of dollars)	Multipliers			Impacts/4/		
		Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)	Output (thousands of dollars)	Earnings (thousands of dollars)	Employment (number of jobs)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Maintenance and repair construction	560	1.7461	0.6818	36.0	978	382	20
Food and kindred products and tobacco	2,830	1.8068	.3276	22.0	5,113	927	62
Apparel	10	1.4896	.4370	37.0	15	4	0
Printing and publishing	43	1.8349	.5917	35.7	79	25	2
Chemicals and petroleum refining	286	1.8600	.2183	9.3	532	62	3
Fabricated metal products	185	1.4366	.3903	18.9	266	72	3
Motor vehicles and equipment	220	1.3969	.3849	17.1	307	85	4
Transportation equipment, except motor vehicles	20	1.5513	.5536	24.4	31	11	0
Miscellaneous manufacturing industries	12	1.5652	.4076	31.8	19	5	0
Transportation	74	1.9893	.5664	28.0	147	42	2
Communication	735	1.3979	.3864	16.7	1,027	284	12
Electric, gas, water, and sanitary services	2,195	1.8082	.2431	10.6	3,969	534	23
Wholesale trade	366	1.6516	.5876	31.2	604	215	11
Business services	730	1.6184	.6823	44.7	1,181	498	33
Miscellaneous services	120	1.6840	.5981	33.7	202	72	4
Households	2,885	.8443	.2568	18.5	2,436	741	53
Total	**11,271**	....	....	....	**16,906**	**3,959**	**232**

1. Each entry in column 2 represents the total dollar change in output that occurs in all industries for each additional dollar of output not delivered to final demand by the corresponding defense-related industry.
2. Each entry in column 3 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output not delivered to final demand by the corresponding defense-related industry.
3. Each entry in column 4 represents the total change in number of jobs in all industries for each additional 1 million dollars of output not delivered to final demand by the corresponding defense-related industry.
4. For each defense-related industry, the entries in columns 5, 6, and 7 are obtained by multiplying the entry in column 1 by the entries in columns 2, 3, and 4, respectively.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

the derivation of the impacts of not operating the military base. The estimates are based on total multipliers from RIMS II for the defense-related industries to which the final-demand changes are assigned. For example, to estimate the impact on the earnings of households employed by all industries of $730 thousand of services not delivered to final demand by the business services industry, multiply $730 thousand by the total multiplier for earnings for the business services industry--0.6823. When summed for all defense-related industries, impacts total $16,906 thousand in output, $3,959 thousand in earnings, and 232 jobs.

V. RIMS II Reading List

(Those documents labeled "Available from BEA" can be obtained by writing to the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Analysis Division, BE-61, Washington, DC 20230.)

Beemiller, Richard M., and Ambargis, Zoe O. "A Comparison of RIMS II Input-Output Multipliers Based Upon 1972 Industrial Relationships With Those Based on 1977 Relationships." Paper presented at the annual meetings of the Southern Regional Science Association, Washington, DC, May 9-11, 1985. Available from BEA.

Cartwright, Joseph V. "Estimating the Spatial Distribution of Program Impacts Within Metropolitan Areas." Paper presented at the annual meetings of the Southern Regional Science Association, Nashville, TN, April 14-16, 1979. Available from BEA.

_____, and Ambargis, Zoe O. "Location Quotients and Trade in Regional I-O Tables." Paper presented at the annual meetings of the Southern Regional Science Association, Orlando, FL, May 2-4, 1984. Available from BEA.

Kort, John R., and Cartwright, Joseph V. "Modeling the Multiregional Economy: Integrating Econometric and Input-Output Models." The Review of Regional Studies 11 (Fall 1981): 1-17.

_____, and Beemiller, Richard M. "Linking Regional Economic Models for Policy Analysis." International Series in Economic Modeling. Edited by James Schmidt and M. Ray Perryman. Vol. I: Regional Economic Modeling. Hingham, MA: Kluwer-Nijhoff, forthcoming.

U.S. Department of Commerce. Bureau of Economic Analysis. Estimating the Potential Impacts of a Nuclear Reactor Accident: Methodology and Case Studies, by J.V. Cartwright, R.M. Beemiller, E.A. Trott, Jr., and J.M. Younger. Prepared for the U.S. Nuclear Regulatory Commission. Washington, DC: U.S. Nuclear Regulatory Commission, April 1982. (Available from the Commission's Division of Technical Information and Document Control, Washington, DC 20555; order no. NUREG/CR-2591; price $6.50.)

_____. Regional Input-Output Modeling System: Estimation, Evaluation, and Application of a Disaggregated Regional Impact Model, by Joseph V. Cartwright, Richard M. Beemiller, and Richard D. Gustely. Washington, DC: U.S. Government Printing Office, 1981. (Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; order no. PB-82-168-865; price $16.)

U.S. Department of Defense. President's Economic Adjustment Committee, Office of Economic Adjustment. Modeling the Regional Economic Impacts of Major New Military Bases. Report prepared by the U.S. Department of Commerce, Bureau of Economic Analysis. Washington, DC: U.S. Department of Defense, April 1983. Available from BEA.

_____. President's Economic Adjustment Committee, Office of Economic Adjustment. The Regional Economic Impact of Military Base Spending, by Joseph V. Cartwright and Richard M. Beemiller. Report prepared by the U.S. Department of Commerce, Bureau of Economic Analysis. Washington, DC: U.S. Department of Defense, November 1980. Available from BEA.

Appendix A. Industry-by-Industry Multipliers and Total Multipliers, by Industry, for Output, Earnings, and Employment, Louisiana (five tables)

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output
[Dollars]

	1.0100	1.0200	1.0301	1.0302	2.0100	2.0201	2.0202	2.0203	2.0300	2.0401	2.0402	2.0501	2.0502	2.0503	2.0600
1.....	1.0684	1.1645	1.1394	1.1231	1.1826	1.1140	1.0549	1.0477	1.0388	1.0943	1.0892	1.0546	1.0809	1.0609	1.0794
2.....	.0009	.0014	.0007	.0013	.0012	.0008	.0008	.0008	.0009	.0013	.0011	.0010	.0009	.0009	.0009
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	.0001	0
4.....	.0145	.0178	.0127	.0146	.0342	.0445	.0427	.0379	.0280	.0378	.0353	.0249	.0296	.0430	.0257
5.....	.0013	.0021	.0011	.0012	.0050	.0078	.0094	.0035	.0037	.0037	.0033	.0033	.0049	.0071	.0019
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0224	.0233	.0181	.0177	.0383	.0392	.0370	.0322	.0362	.0320	.0370	.0284	.0337	.0312	.0311
8.....	.1974	.3422	.1498	.2284	.0313	.0267	.0272	.0272	.0307	.0315	.0340	.0323	.0302	.0264	.0302
9.....	.0002	.0002	.0002	.0002	.0002	.0002	.0027	.0002	.0004	.0002	.0002	.0002	.0001	.0001	.0002
10.....	.0039	.0045	.0028	.0035	.0065	.0052	.0049	.0071	.0062	.0086	.0094	.0086	.0063	.0057	.0062
11.....	.0035	.0054	.0028	.0034	.0055	.0041	.0043	.0078	.0041	.0179	.0085	.0077	.0043	.0039	.0039
12.....	.0033	.0037	.0027	.0032	.0054	.0048	.0047	.0046	.0051	.0054	.0054	.0051	.0052	.0046	.0049
13.....	.0554	.0785	.0479	.0546	.1785	.2098	.2338	.1463	.1236	.1599	.1397	.1098	.1478	.1708	.1049
14.....	.0007	.0016	.0006	.0010	.0009	.0009	.0010	.0065	.0013	.0010	.0009	.0008	.0009	.0008	.0008
15.....	.0022	.0022	.0016	.0016	.0037	.0032	.0032	.0030	.0031	.0073	.0034	.0028	.0030	.0029	.0028
16.....	.0020	.0019	.0014	.0015	.0038	.0036	.0035	.0033	.0028	.0043	.0045	.0030	.0042	.0046	.0026
17.....	.0006	.0008	.0006	.0007	.0012	.0012	.0014	.0009	.0010	.0010	.0010	.0008	.0010	.0010	.0008
18.....	.0022	.0025	.0018	.0021	.0048	.0040	.0044	.0034	.0035	.0042	.0039	.0031	.0037	.0039	.0033
19.....	.0020	.0017	.0029	.0028	.0036	.0045	.0042	.0027	.0044	.0033	.0027	.0026	.0041	.0030	.0032
20.....	.0015	.0014	.0013	.0014	.0027	.0028	.0028	.0023	.0026	.0027	.0028	.0025	.0029	.0023	.0027
21.....	.0040	.0037	.0028	.0036	.0065	.0059	.0056	.0062	.0071	.0076	.0083	.0079	.0072	.0065	.0072
22.....	.0011	.0012	.0008	.0011	.0018	.0016	.0015	.0015	.0017	.0019	.0020	.0019	.0017	.0017	.0017
23.....	.0001	.0001	.0001	.0001	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
24.....	.0007	.0007	.0005	.0006	.0011	.0010	.0009	.0010	.0011	.0012	.0012	.0012	.0011	.0010	.0011
25.....	.0572	.0572	.0407	.0437	.0520	.0577	.0586	.0457	.0407	.0517	.0461	.0482	.0448	.0660	.0370
26.....	.0134	.0141	.0113	.0129	.0195	.0183	.0178	.0180	.0198	.0205	.0213	.0204	.0197	.0189	.0191
27.....	.0325	.0369	.0273	.0312	.0741	.0588	.0692	.0710	.0424	.0629	.0454	.0546	.0432	.2233	.0412
28.....	.0721	.1120	.0754	.0946	.0887	.0860	.0931	.0756	.1018	.0841	.0741	.0783	.0750	.0696	.0675
29.....	.0448	.0423	.0323	.0397	.0755	.0717	.0669	.0715	.0815	.0888	.0958	.0869	.0819	.0718	.0808
30.....	.0224	.0184	.0247	.0139	.0298	.0254	.0240	.0348	.0270	.0273	.0277	.0280	.0327	.0272	.0248
31.....	.0144	.0133	.0134	.0141	.0239	.0252	.0198	.0211	.0243	.0219	.0256	.0227	.0245	.0194	.0242
32.....	.0736	.0667	.0573	.0640	.1926	.1786	.1475	.1353	.1626	.1123	.1207	.1262	.1626	.1282	.1545
33.....	.0074	.0109	.0056	.0064	.0159	.0106	.0099	.0100	.0116	.0142	.0150	.0129	.0121	.0107	.0114
34.....	.0076	.0064	.0054	.0064	.0108	.0100	.0093	.0105	.0110	.0124	.0159	.0121	.0132	.0119	.0110
35.....	.0233	.0272	.0223	.0239	.0470	.0465	.0482	.0373	.0379	.0408	.0386	.0359	.0448	.0358	.0399
36.....	.0216	.0230	.0161	.0198	.0356	.0313	.0299	.0314	.0362	.0388	.0413	.0389	.0361	.0332	.0353
37.....	.0243	.0292	.0226	.0257	.0348	.0316	.0299	.0332	.0381	.0408	.0446	.0425	.0385	.0349	.0387
38.....	.0230	.0239	.0198	.0224	.0383	.0348	.0317	.0311	.0398	.0393	.0416	.0389	.0379	.0348	.0362
39.....	.3738	.3415	.2587	.3261	.6011	.5463	.5162	.5750	.6599	.7081	.7731	.7363	.6670	.6047	.6693
Total/1/	1.8260	2.1432	1.7668	1.8865	2.2573	2.1725	2.1071	1.9725	1.9810	2.0831	2.0476	1.9494	2.0412	2.1682	1.9373

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
(Dollars)

	2.0701	2.0702	3.0001	3.0002	4.0001	4.0002	5.0000	6.0100	6.0200	7.0000	8.0000	9.0001	9.0002	9.0003	9.0004
1.....	1.0388	1.0487	0.1418	0.0075	1.0614	1.0222	0	0.0057	0	0.0051	0.0026	0.0052	0.0056	0	0.0052
2.....	.0009	.0010	1.0051	1.0052	.0031	.0012	0	.0011	0	.0009	.0004	.0007	.0007	0	.0007
3.....	0	0	0	0	0	0	0	.0001	0	1.0007	0	0	0	0	0
4.....	.0204	.0470	.0151	.0409	.0365	.0274	0	.0293	0	.0175	1.0365	.0257	.0241	0	.0295
5.....	.0006	.0086	.0034	.0005	.0053	.0019	1.0000	1.0387	1.0000	.0011	.0007	1.0070	1.0587	1.0000	1.0135
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0220	.0312	.1118	.0262	.0359	.0358	0	.0228	0	.0208	.0682	.0236	.0263	0	.0216
8.....	.0327	.0327	.0311	.0461	.0448	.0375	0	.0228	0	.0204	.0106	.0215	.0233	0	.0217
9.....	.0002	.0009	.0003	.0213	.0003	.0002	0	.0001	0	.0002	.0001	.0001	.0001	0	.0002
10.....	.0071	.0069	.0044	.0079	.0132	.0083	0	.0050	0	.0046	.0022	.0048	.0052	0	.0052
11.....	.0038	.0079	.0043	.0057	.0126	.0048	0	.0032	0	.0029	.0015	.0058	.0152	0	.0138
12.....	.0049	.0087	.0034	.0053	.0065	.0061	0	.0042	0	.0039	.0024	.0048	.0047	0	.0053
13.....	.0673	.2907	.0989	.1108	.2106	.0990	0	.0952	0	.0526	.0308	.0676	.0613	0	.0788
14.....	.0008	.0033	.0011	.0009	.0011	.0010	0	.0014	0	.0008	.0004	.0012	.0010	0	.0013
15.....	.0021	.0028	.0043	.0034	.0038	.0026	0	.0096	0	.0072	.0013	.0016	.0020	0	.0018
16.....	.0020	.0028	.0087	.0024	.0031	.0043	0	.0045	0	.0047	.0027	.0024	.0071	0	.0022
17.....	.0006	.0027	.0022	.0018	.0013	.0007	0	.0087	0	.0020	.0018	.0027	.0030	0	.0032
18.....	.0024	.0043	.0087	.0073	.0056	.0032	0	.0054	0	.0034	.0084	.0071	.0083	0	.0070
19.....	.0025	.0039	.0019	.0045	.0025	.0023	0	.0103	0	.0114	.0093	.0097	.0131	0	.0209
20.....	.0026	.0028	.0022	.0028	.0026	.0028	0	.0029	0	.0030	.0020	.0030	.0034	0	.0033
21.....	.0083	.0080	.0039	.0080	.0075	.0098	0	.0060	0	.0053	.0025	.0057	.0062	0	.0057
22.....	.0019	.0020	.0012	.1052	.0029	.0022	0	.0018	0	.0014	.0007	.0015	.0018	0	.0019
23.....	.0002	.0002	.0002	.0003	.0002	.0003	0	.0002	0	.0002	.0001	.0002	.0002	0	.0002
24.....	.0012	.0014	.0007	.0013	.0012	.0015	0	.0009	0	.0009	.0004	.0011	.0011	0	.0011
25.....	.0338	.0543	.0378	.0558	.0703	.0603	0	.0479	0	.0313	.0168	.0387	.0432	0	.0378
26.....	.0201	.0246	.0114	.0195	.0201	.0222	0	.0150	0	.0134	.0082	.0159	.0163	0	.0159
27.....	.0381	.0762	.0325	.0424	.0693	.0503	0	.1049	0	.0423	.0309	.0726	.0812	0	.0759
28.....	.0580	.1024	.0682	.0789	.1147	.0999	0	.0678	0	.0554	.0241	.0575	.0618	0	.0639
29.....	.0900	.0892	.0440	.0896	.0860	.1108	0	.0660	0	.0584	.0279	.0600	.0631	0	.0660
30.....	.0253	.0271	.0184	.0226	.0293	.0264	0	.0226	0	.0190	.0127	.0248	.0254	0	.0197
31.....	.0222	.0226	.0105	.0211	.0221	.0349	0	.0159	0	.0145	.0080	.0190	.0181	0	.0175
32.....	.1158	.1127	.0541	.1003	.1342	.1272	0	.0750	0	.0785	.1012	.0844	.0951	0	.0775
33.....	.0127	.0130	.0118	.0124	.0537	.0139	0	.0095	0	.0081	.0046	.0130	.0147	0	.0117
34.....	.0203	.0128	.0067	.0124	.0133	.0152	0	.0091	0	.0084	.0043	.0097	.0106	0	.0095
35.....	.0341	.0447	.0315	.0366	.0509	.0475	0	.0343	0	.0417	.0224	.0502	.0518	0	.0714
36.....	.0393	.0413	.0276	.0436	.0535	.0467	0	.0319	0	.0271	.0187	.0311	.0333	0	.0324
37.....	.0444	.0431	.0204	.0426	.0398	.0519	0	.0305	0	.0280	.0134	.0288	.0312	0	.0288
38.....	.0397	.0408	.0269	.0425	.0610	.0463	0	.0426	0	.0299	.0167	.0332	.0364	0	.0282
39.....	.7697	.7471	.3531	.7389	.6824	.8993	0	.5300	0	.4853	.2330	.5002	.5414	0	.4993
Total/1/	1.8171	2.2232	1.8565	2.0353	2.2801	2.0285	1.0000	1.8529	1.0000	1.6267	1.4955	1.7419	1.8551	1.0000	1.8000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
(Dollars)

	10.0000	11.0101	11.0102	11.0103	11.0104	11.0105	11.0106	11.0107	11.0201	11.0202	11.0203	11.0204	11.0205	11.0206	11.0207
1.....	0.0052	0.0122	0.0109	0.0096	0.0082	0.0105	0.0081	0.0076	0.0080	0.0084	0.0086	0.0081	0.0082	0.0087	0.0086
2.....	.0007	.0100	.0072	.0055	.0029	.0075	.0021	.0026	.0016	.0019	.0027	.0023	.0019	.0020	.0018
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0474	.0197	.0199	.0180	.0231	.0223	.0185	.0200	.0207	.0180	.0190	.0249	.0202	.0256	.0182
5.....	1.0464	.0053	.0050	.0042	.0042	.0045	.0091	.0040	.0030	.0042	.0041	.0076	.0051	.0080	.0049
6.....	0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
7.....	.0321	.0245	.0251	.0227	.0223	.0234	.0220	.0216	.0225	.0222	.0236	.0240	.0224	.0242	.0228
8.....	.0190	.0297	.0300	.0290	.0272	.0274	.0289	.0289	.0314	.0302	.0319	.0316	.0299	.0323	.0312
9.....	.0002	.0004	.0004	.0003	.0005	.0003	.0005	.0005	.0002	.0003	.0002	.0003	.0004	.0003	.0003
10.....	.0041	.0065	.0070	.0066	.0066	.0060	.0068	.0068	.0070	.0067	.0071	.0071	.0067	.0074	.0070
11.....	.0056	.0075	.0077	.0080	.0073	.0096	.0068	.0066	.0062	.0092	.0059	.0060	.0071	.0062	.0094
12.....	.0052	.0059	.0060	.0057	.0055	.0062	.0055	.0054	.0057	.0056	.0058	.0059	.0056	.0061	.0058
13.....	.0955	.0654	.0666	.0585	.0676	.0801	.0545	.0559	.0592	.0549	.0552	.0741	.0617	.0727	.0590
14.....	.0010	.0023	.0032	.0049	.0032	.0044	.0044	.0021	.0018	.0028	.0031	.0015	.0031	.0017	.0034
15.....	.0030	.1603	.1178	.0989	.0503	.1427	.0344	.0455	.0211	.0283	.0511	.0331	.0261	.0278	.0261
16.....	.0024	.0656	.0627	.0602	.0695	.0575	.0857	.0539	.0348	.0551	.0604	.0842	.0578	.0870	.0639
17.....	.0028	.0044	.0055	.0077	.0103	.0043	.0098	.0091	.0088	.0091	.0112	.0085	.0086	.0088	.0090
18.....	.0069	.0185	.0165	.0218	.0832	.0204	.0524	.0588	.1235	.0857	.1305	.0961	.0880	.0537	.0727
19.....	.0076	.0040	.0060	.0084	.0083	.0031	.0081	.0061	.0065	.0088	.0051	.0198	.0082	.0050	.0045
20.....	.0028	.0115	.0101	.0112	.0119	.0109	.0214	.0124	.0125	.0213	.0147	.0069	.0190	.0179	.0195
21.....	.0047	.0076	.0077	.0075	.0068	.0070	.0074	.0074	.0083	.0078	.0082	.0082	.0077	.0084	.0080
22.....	.0014	.0019	.0019	.0019	.0021	.0018	.0021	.0021	.0026	.0024	.0025	.0023	.0024	.0021	.0024
23.....	.0002	.0005	.0005	.0006	.0007	.0004	.0013	.0009	.0007	.0009	.0006	.0003	.0011	.0010	.0010
24.....	.0009	.0014	.0016	.0014	.0021	.0017	.0019	.0017	.0016	.0015	.0014	.0015	.0016	.0015	.0014
25.....	.0426	.0684	.0667	.0626	.0607	.0666	.0578	.0536	.0575	.0599	.0557	.0578	.0614	.0641	.0572
26.....	.0150	.0236	.0250	.0245	.0239	.0237	.0240	.0236	.0241	.0242	.0255	.0257	.0240	.0262	.0258
27.....	.1813	.0464	.0474	.0460	.0452	.0450	.0440	.0431	.0453	.0450	.0464	.0467	.0450	.0490	.0462
28.....	.0519	.1158	.1094	.1065	.0971	.1146	.0936	.0868	.0926	.0969	.0888	.0859	.0982	.0911	.0932
29.....	.0507	.1439	.1521	.1456	.1297	.1629	.1105	.1120	.1083	.1081	.1155	.1145	.1111	.1177	.1098
30.....	.0321	.0262	.0267	.0244	.0245	.0238	.0256	.0253	.0274	.0264	.0277	.0274	.0263	.0281	.0269
31.....	.0163	.0224	.0232	.0226	.0215	.0202	.0221	.0221	.0235	.0228	.0239	.0239	.0227	.0244	.0233
32.....	.0720	.0973	.0990	.0954	.0873	.0922	.0938	.0939	.1023	.0984	.1034	.1030	.0974	.1059	.1019
33.....	.0104	.0126	.0128	.0124	.0116	.0119	.0128	.0126	.0141	.0137	.0142	.0141	.0135	.0144	.0141
34.....	.0076	.0122	.0126	.0121	.0114	.0116	.0122	.0123	.0132	.0126	.0134	.0134	.0129	.0140	.0132
35.....	.0488	.0762	.0787	.0702	.0761	.0858	.1092	.0971	.0997	.1089	.1033	.1226	.1032	.1353	.1224
36.....	.0301	.0401	.0401	.0389	.0416	.0371	.0410	.0394	.0416	.0410	.0424	.0422	.0405	.0428	.0417
37.....	.0246	.0400	.0408	.0394	.0355	.0370	.0389	.0392	.0430	.0410	.0435	.0431	.0406	.0442	.0425
38.....	.0358	.0395	.0403	.0384	.0424	.0381	.0413	.0403	.0426	.0430	.0432	.0460	.0449	.0540	.0429
39.....	.4258	.6949	.7073	.6833	.6151	.6418	.6751	.6809	.7463	.7116	.7553	.7476	.7038	.7675	.7380
Total/1/	1.9141	2.2297	2.1942	2.1317	2.1323	2.2226	2.1181	2.0612	2.1230	2.1271	2.1997	2.2206	2.1344	2.2197	2.1421

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	11.0231	11.0232	11.0241	11.0250	11.0301	11.0302	11.0303	11.0304	11.0305	11.0306	11.0307	11.0308	11.0400	11.0501	11.0502
1.....	0.0082	0.0090	0.0084	0.0088	0.0082	0.0085	0.0086	0.0081	0.0084	0.0075	0.0081	0.0080	0.0109	0.0105	0.0100
2.....	.0014	.0020	.0020	.0020	.0019	.0030	.0019	.0010	.0011	.0010	.0011	.0018	.0014	.0062	.0043
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0204	.0202	.0212	.0221	.0198	.0221	.0230	.0221	.0219	.0230	.0204	.0299	.0373	.0237	.0348
5.....	.0050	.0051	.0060	.0057	.0021	.0046	.0045	.0025	.0019	.0057	.0062	.0117	.0179	.0047	.0058
6.....	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
7.....	.0221	.0221	.0225	.0215	.0205	.0228	.0244	.0238	.0233	.0240	.0241	.0249	.0251	.0231	.0255
8.....	.0302	.0310	.0307	.0309	.0312	.0318	.0340	.0339	.0332	.0320	.0333	.0315	.0305	.0274	.0327
9.....	.0004	.0003	.0004	.0004	.0005	.0002	.0002	.0003	.0002	.0002	.0002	.0003	.0002	.0003	.0003
10.....	.0068	.0069	.0069	.0070	.0069	.0071	.0075	.0076	.0076	.0072	.0074	.0069	.0068	.0061	.0074
11.....	.0075	.0070	.0068	.0077	.0044	.0047	.0051	.0052	.0050	.0050	.0056	.0052	.0050	.0088	.0079
12.....	.0056	.0058	.0056	.0059	.0053	.0054	.0061	.0065	.0063	.0060	.0064	.0060	.0058	.0059	.0062
13.....	.0616	.0592	.0640	.0654	.0572	.0629	.0641	.0588	.0598	.0615	.0558	.0799	.1018	.0779	.1037
14.....	.0036	.0030	.0027	.0023	.0011	.0011	.0016	.0012	.0012	.0017	.0017	.0011	.0010	.0018	.0038
15.....	.0145	.0336	.0294	.0281	.0273	.0620	.0275	.0032	.0051	.0038	.0060	.0206	.0112	.1177	.0599
16.....	.0628	.0637	.0757	.0680	.0236	.0323	.0475	.0245	.0219	.0600	.0791	.1196	.1003	.0596	.0485
17.....	.0094	.0072	.0083	.0079	.0458	.0123	.0111	.0129	.0152	.0313	.0153	.0074	.0064	.0046	.0106
18.....	.0573	.0467	.0521	.0361	.0184	.0526	.1122	.1388	.1112	.1124	.0915	.0715	.0564	.0340	.0754
19.....	.0089	.0063	.0060	.0064	.0025	.0034	.0054	.0065	.0051	.0067	.0354	.0042	.0029	.0040	.0030
20.....	.0184	.0205	.0153	.0169	.0080	.0059	.0145	.0036	.0044	.0032	.0069	.0084	.0099	.0081	.0072
21.....	.0078	.0080	.0079	.0080	.0081	.0083	.0088	.0088	.0086	.0093	.0097	.0081	.0079	.0070	.0084
22.....	.0023	.0021	.0023	.0022	.0020	.0023	.0028	.0027	.0025	.0029	.0026	.0026	.0024	.0019	.0021
23.....	.0014	.0009	.0009	.0013	.0004	.0005	.0006	.0004	.0004	.0004	.0004	.0005	.0003	.0003	.0003
24.....	.0015	.0016	.0014	.0018	.0013	.0015	.0014	.0014	.0015	.0014	.0015	.0015	.0031	.0016	.0015
25.....	.0590	.0516	.0549	.0564	.0454	.0638	.0592	.0632	.0603	.0646	.0653	.0834	.0884	.0667	.0675
26.....	.0251	.0245	.0238	.0246	.0223	.0232	.0247	.0263	.0255	.0261	.0277	.0262	.0249	.0241	.0269
27.....	.0448	.0454	.0453	.0461	.0428	.0444	.0479	.0473	.0463	.0471	.0480	.0471	.0467	.0446	.0486
28.....	.0960	.0925	.0895	.0925	.0873	.0812	.0899	.0880	.0864	.0838	.0979	.0780	.0816	.1068	.0964
29.....	.1108	.1207	.1179	.1201	.0917	.0958	.1076	.0959	.0933	.0903	.0944	.0927	.0893	.1544	.1266
30.....	.0263	.0267	.0267	.0267	.0236	.0273	.0278	.0304	.0298	.0292	.0302	.0290	.0275	.0222	.0282
31.....	.0227	.0230	.0232	.0233	.0202	.0238	.0236	.0252	.0249	.0240	.0249	.0243	.0229	.0211	.0243
32.....	.0985	.1011	.1002	.1010	.1003	.1025	.1112	.1110	.1088	.1049	.1090	.1040	.1015	.0918	.1071
33.....	.0135	.0138	.0139	.0139	.0128	.0137	.0155	.0170	.0166	.0155	.0163	.0153	.0145	.0120	.0135
34.....	.0130	.0131	.0131	.0134	.0129	.0136	.0143	.0147	.0147	.0140	.0144	.0137	.0131	.0118	.0139
35.....	.1079	.1073	.1257	.1216	.1069	.0849	.1626	.2460	.2362	.2057	.2144	.1996	.1870	.0941	.1109
36.....	.0405	.0409	.0417	.0417	.0403	.0410	.0449	.0464	.0444	.0429	.0452	.0430	.0413	.0371	.0429
37.....	.0411	.0424	.0417	.0421	.0430	.0439	.0466	.0462	.0454	.0436	.0454	.0429	.0415	.0370	.0445
38.....	.0450	.0446	.0459	.0457	.0401	.0447	.0459	.0499	.0492	.0498	.0492	.0487	.0485	.0402	.0487
39.....	.7136	.7355	.7242	.7304	.7461	.7616	.8099	.8026	.7885	.7572	.7876	.7439	.7199	.6423	.7732
Total/1/	2.1014	2.1097	2.1402	2.1256	1.9860	2.0791	2.2346	2.2814	2.2279	2.2478	2.3009	2.2991	2.2732	2.1991	2.2595

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	11.0601	11.0602	11.0603	11.0701	11.0702	11.0703	11.0704	12.0100	12.0201	12.0202	12.0203	12.0204	12.0205	12.0206	12.0207
1.....	0.0068	0.0085	0.0079	0.0093	0.0087	0.0089	0.0109	0.0088	0.0090	0.0099	0.0092	0.0315	0.0118	0.0608	0.0072
2.....	.0009	.0011	.0023	.0016	.0015	.0021	.0024	.0030	.0026	.0046	.0048	.0019	.0071	.0020	.0010
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0217	.0237	.0175	.0261	.0418	.0355	.0299	.0227	.0209	.0231	.0301	.0250	.0220	.0218	.0279
5.....	.0029	.0009	.0061	.0069	.0054	.0066	.0108	.0042	.0032	.0042	.0191	.0012	.0086	.0021	.0052
6.....	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0	0	0	0	0	0	0	0
7.....	.0214	.0219	.0221	.0239	.0270	.0271	.0247	1.0223	1.0224	1.0223	1.0239	1.0257	1.0245	1.0237	1.0223
8.....	.0282	.0369	.0311	.0337	.0365	.0362	.0321	.0295	.0333	.0290	.0289	.0448	.0370	.0352	.0301
9.....	.0002	.0003	.0003	.0004	.0004	.0003	.0003	.0003	.0003	.0005	.0004	.0003	.0002	.0002	.0004
10.....	.0062	.0086	.0071	.0077	.0087	.0082	.0072	.0069	.0073	.0065	.0066	.0100	.0081	.0079	.0067
11.....	.0040	.0043	.0046	.0063	.0054	.0059	.0053	.0094	.0078	.0081	.0060	.0051	.0047	.0045	.0049
12.....	.0051	.0057	.0049	.0059	.0071	.0070	.0061	.0059	.0059	.0055	.0054	.0064	.0056	.0055	.0050
13.....	.0734	.0664	.0493	.0736	.1078	.0951	.0819	.0983	.0727	.0849	.0953	.0696	.0601	.0628	.0805
14.....	.0011	.0024	.0030	.0021	.0015	.0019	.0017	.0051	.0051	.0031	.0027	.0014	.0011	.0011	.0014
15.....	.0031	.0040	.0335	.0153	.0092	.0338	.0337	.0433	.0307	.0804	.0783	.0174	.0948	.0290	.0039
16.....	.0215	.0072	.0926	.0654	.0403	.0516	.0586	.0417	.0325	.0482	.0675	.0132	.0163	.0211	.0589
17.....	.0198	.0038	.0072	.0079	.0051	.0054	.0063	.0043	.0051	.0081	.0116	.0074	.0101	.0115	.0167
18.....	.0474	.0298	.0421	.0484	.0703	.0490	.0671	.0317	.0491	.0494	.0616	.0150	.0376	.0863	.1941
19.....	.0392	.0071	.0076	.0055	.0040	.0032	.0034	.0055	.0044	.0050	.0046	.0019	.0029	.0037	.0086
20.....	.0029	.0058	.0206	.0147	.0033	.0032	.0081	.0109	.0116	.0060	.0180	.0042	.0045	.0090	.0037
21.....	.0073	.0096	.0081	.0088	.0095	.0093	.0083	.0076	.0086	.0075	.0075	.0117	.0096	.0092	.0079
22.....	.0022	.0023	.0024	.0026	.0031	.0026	.0024	.0020	.0022	.0020	.0021	.0027	.0025	.0026	.0026
23.....	.0002	.0003	.0003	.0006	.0004	.0003	.0003	.0008	.0007	.0005	.0007	.0003	.0004	.0005	.0005
24.....	.0012	.0015	.0013	.0018	.0016	.0016	.0021	.0019	.0016	.0017	.0017	.0018	.0015	.0015	.0013
25.....	.0955	.0545	.0795	.0696	.0869	.0837	.0835	.0595	.0538	.0665	.0777	.0504	.0669	.0501	.0642
26.....	.0227	.0235	.0209	.0231	.0300	.0303	.0270	.0241	.0255	.0214	.0223	.0271	.0222	.0238	.0196
27.....	.0409	.0458	.0429	.0479	.0520	.0520	.0468	.0453	.0468	.0445	.0459	.0555	.0488	.0472	.0447
28.....	.0869	.0708	.0753	.0842	.0801	.0781	.0841	.1100	.0957	.1069	.1032	.0744	.0877	.0869	.1115
29.....	.0789	.1071	.0958	.1013	.1072	.1040	.0987	.1583	.1423	.1273	.1211	.1263	.1057	.1084	.0845
30.....	.0276	.0330	.0221	.0293	.0296	.0294	.0283	.0267	.0298	.0284	.0237	.0304	.0255	.0252	.0245
31.....	.0546	.0238	.0203	.0248	.0271	.0268	.0244	.0207	.0228	.0213	.0191	.0271	.0223	.0227	.0210
32.....	.0927	.1181	.0979	.1087	.1213	.1201	.1059	.0973	.1077	.0942	.0949	.1411	.1169	.1126	.0961
33.....	.0118	.0134	.0115	.0150	.0184	.0186	.0157	.0119	.0129	.0116	.0113	.0161	.0134	.0132	.0118
34.....	.0116	.0148	.0127	.0142	.0156	.0155	.0138	.0122	.0135	.0120	.0121	.0179	.0149	.0144	.0126
35.....	.0934	.0607	.0479	.1171	.2790	.3009	.1989	.0422	.0421	.0470	.0594	.0422	.0564	.0523	.0417
36.....	.0379	.0463	.0397	.0447	.0490	.0485	.0429	.0391	.0429	.0390	.0387	.0552	.0469	.0445	.0410
37.....	.0383	.0512	.0428	.0461	.0500	.0495	.0438	.0402	.0458	.0393	.0392	.0626	.0510	.0488	.0409
38.....	.0484	.0498	.0407	.0510	.0603	.0580	.0495	.0381	.0413	.0373	.0477	.0533	.0465	.0439	.0432
39.....	.6608	.8882	.7435	.8010	.8672	.8584	.7596	.6974	.7943	.6813	.6805	1.0867	.8864	.8470	.7106
Total/1/	2.0580	1.9648	2.0222	2.1453	2.4051	2.4101	2.2669	2.0914	2.0599	2.1071	2.2020	2.0778	2.0961	2.0959	2.1480

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	12.0208	12.0209	12.0210	12.0211	12.0212	12.0213	12.0214	12.0215	12.0216	13.0100	13.0200	13.0300	13.0500	13.0600	13.0700
1.....	0.0080	0.0082	0.0099	0.0114	0.0088	0.0077	0.0096	0.0071	0.0099	0.0053	0.0075	0	0	0	0
2.....	.0011	.0011	.0013	.0015	.0017	.0020	.0020	.0013	.0022	.0007	.0011	0	0	0	0
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0221	.0256	.0217	.0332	.0263	.0321	.0305	.0232	.0308	.0120	.0222	0	0	0	0
5.....	.0102	.0140	.0050	.0096	.0210	.0267	.0254	.0059	.0196	.0002	.0004	0	0	0	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	1.0231	1.0240	1.0256	1.0217	1.0226	1.0251	1.0256	1.0203	1.0237	.0166	.0319	0	0	0	0
8.....	.0315	.0345	.0408	.0288	.0296	.0306	.0374	.0295	.0304	.0233	.0320	0	0	0	0
9.....	.0005	.0003	.0003	.0005	.0003	.0004	.0002	.0002	.0003	.0001	.0003	0	0	0	0
10.....	.0081	.0077	.0092	.0064	.0065	.0072	.0083	.0066	.0066	.0049	.0097	0	0	0	0
11.....	.0052	.0052	.0053	.0050	.0059	.0052	.0049	.0040	.0055	.0027	.0090	0	0	0	0
12.....	.0051	.0054	.0062	.0050	.0050	.0052	.0057	.0045	.0051	.0035	.0066	0	0	0	0
13.....	.0714	.0770	.0624	.1012	.0814	.0923	.0829	.0788	.0906	.0300	.0580	0	0	0	0
14.....	.0014	.0051	.0027	.0023	.0039	.0032	.0032	.0023	.0057	.0014	.0011	0	0	0	0
15.....	.0045	.0052	.0063	.0196	.0211	.0295	.0202	.0099	.0262	.0013	.0037	0	0	0	0
16.....	.1109	.0612	.0518	.0479	.0693	.1133	.0464	.0314	.0762	.0016	.0023	0	0	0	0
17.....	.0151	.0163	.0055	.0148	.0172	.0130	.0030	.0041	.0135	.0038	.0103	0	0	0	0
18.....	.1521	.0833	.0930	.0592	.0590	.1106	.0304	.0320	.0516	.0027	1.0592	0	1.0000	1.0000	1.0000
19.....	.0074	.0059	.0084	.0041	.0052	.0065	.0024	.0149	.0043	.0078	.0156	0	0	0	0
20.....	.0039	.0031	.0036	.0073	.0129	.0034	.0082	.0051	.0129	.0053	.0039	0	0	0	0
21.....	.0082	.0094	.0107	.0076	.0078	.0081	.0097	.0077	.0081	.0058	.0082	0	0	0	0
22.....	.0025	.0025	.0027	.0021	.0022	.0025	.0025	.0020	.0023	1.0081	.0022	1.0000	0	0	0
23.....	.0005	.0004	.0004	.0005	.0005	.0005	.0003	.0002	.0004	.0003	.0005	0	0	0	0
24.....	.0014	.0018	.0018	.0018	.0020	.0015	.0022	.0012	.0016	.0009	.0015	0	0	0	0
25.....	.0696	.0765	.0599	.0885	.0826	.0863	.0968	.0467	.0814	.0293	.0503	0	0	0	0
26.....	.0205	.0236	.0437	.0216	.0195	.0235	.0248	.0180	.0230	.0176	.0253	0	0	0	0
27.....	.0464	.0492	.0533	.0432	.0449	.0481	.0508	.0424	.0465	.0389	.0591	0	0	0	0
28.....	.1028	.0884	.0894	.0973	.0967	.0985	.0761	.0655	.0898	.0432	.0646	0	0	0	0
29.....	.0866	.0978	.1151	.0870	.0930	.0887	.1056	.0836	.0952	.0609	.0873	0	0	0	0
30.....	.0250	.0253	.0290	.0217	.0216	.0243	.0269	.0229	.0254	.0188	.0255	0	0	0	0
31.....	.0209	.0219	.0250	.0201	.0186	.0204	.0237	.0191	.0213	.0139	.0215	0	0	0	0
32.....	.0990	.1099	.1285	.0927	.0955	.0990	.1201	.0968	.0985	.0738	.1032	0	0	0	0
33.....	.0120	.0128	.0149	.0106	.0110	.0119	.0138	.0118	.0118	.0089	.0140	0	0	0	0
34.....	.0141	.0141	.0165	.0123	.0122	.0129	.0151	.0121	.0126	.0094	.0148	0	0	0	0
35.....	.0455	.0610	.0580	.0693	.0493	.0665	.0544	.0378	.0502	.0405	.0730	0	0	0	0
36.....	.0448	.0450	.0522	.0397	.0394	.0414	.0476	.0373	.0397	.0373	.0439	0	0	0	0
37.....	.0424	.0474	.0564	.0390	.0404	.0416	.0517	.0407	.0416	.0305	.0436	0	0	0	0
38.....	.0397	.0440	.0485	.0412	.0442	.0404	.0483	.0379	.0438	.0267	.0416	0	0	0	0
39.....	.7366	.8235	.9789	.6777	.7017	.7226	.8981	.7061	.7228	.5305	.7575	0	0	0	0
Total/1/	2.1634	2.1140	2.1649	2.0758	2.0792	2.2304	2.1167	1.8650	2.1085	1.5884	1.9550	1.0000	1.0000	1.0000	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	14.0101	14.0102	14.0103	14.0104	14.0200	14.0300	14.0400	14.0500	14.0600	14.0700	14.0800	14.0900	14.1000	14.1100	14.1200
1.....	0.2277	0.0264	0.7890	0	0	0.2076	0.2095	0.1045	0.2546	0.0056	0.0456	0.0610	0	0.0352	0.0461
2.....	.0004	.0006	.0014	0	0	.0006	.0005	.0014	.0007	.2233	.0006	.0007	0	.0008	.2039
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0069	.0096	.0192	0	0	.0108	.0124	.0144	.0107	.0191	.0145	.0169	0	.0135	.0190
5.....	.0004	.0003	.0016	0	0	.0006	.0005	.0007	.0006	.0003	.0009	.0010	0	.0014	.0004
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0091	.0110	.0256	0	0	.0307	.0148	.0278	.0171	.0175	.0146	.0231	0	.0177	.0243
8.....	1.0456	1.0945	1.2583	1.0000	1.0000	1.1305	1.1335	1.2081	1.1390	1.0325	1.0785	1.0460	1.0000	1.1517	1.0383
9.....	.0001	.0001	.0002	0	0	.0001	.0001	.0001	.0001	.0048	.0001	.0001	0	.0001	.0045
10.....	.0020	.0030	.0051	0	0	.0026	.0025	.0041	.0031	.0048	.0032	.0040	0	.0032	.0049
11.....	.0069	.0317	.0279	0	0	.0283	.0198	.0497	.0243	.0107	.0180	.0143	0	.0409	.0286
12.....	.0023	.0122	.0056	0	0	.0089	.0055	.0059	.0042	.0133	.0175	.0087	0	.0284	.0060
13.....	.0215	.0305	.0755	0	0	.0377	.0317	.0483	.0385	.0506	.0405	.0430	0	.0434	.0542
14.....	.0007	.0043	.0016	0	0	.0023	.0022	.0023	.0037	.0012	.0008	.0007	0	.0075	.0016
15.....	.0010	.0019	.0029	0	0	.0024	.0018	.0058	.0023	.0023	.0021	.0036	0	.0031	.0029
16.....	.0007	.0010	.0020	0	0	.0020	.0065	.0019	.0018	.0016	.0230	.0294	0	.0528	.0018
17.....	.0003	.0004	.0008	0	0	.0005	.0007	.0007	.0006	.0009	.0011	.0012	0	.0006	.0008
18.....	.0011	.0023	.0026	0	0	.0027	.0101	.0034	.0069	.0100	.0218	.0210	0	.0023	.0046
19.....	.0011	.0011	.0020	0	0	.0014	.0035	.0020	.0016	.0024	.0017	.0024	0	.0021	.0027
20.....	.0007	.0010	.0017	0	0	.0013	.0009	.0016	.0011	.0017	.0011	.0014	0	.0013	.0018
21.....	.0022	.0032	.0048	0	0	.0028	.0028	.0047	.0034	.0053	.0037	.0045	0	.0036	.0053
22.....	.0006	.0008	.0013	0	0	.0007	.0007	.0012	.0009	.0243	.0009	.0012	0	.0010	.0225
23.....	.0001	.0001	.0002	0	0	.0001	.0001	.0001	.0001	.0002	.0001	.0002	0	.0001	.0002
24.....	.0004	.0006	.0008	0	0	.0005	.0005	.0008	.0006	.0009	.0008	.0008	0	.0010	.0009
25.....	.0232	.0404	.0551	0	0	.0327	.0300	.0428	.0318	.0440	.0537	.0726	0	.0608	.0696
26.....	.0073	.0112	.0169	0	0	.0167	.0095	.0199	.0115	.0208	.0204	.0154	0	.0258	.0193
27.....	.0192	.0266	.0479	0	0	.0278	.0369	.0473	.0309	.0383	.0375	.0467	0	.0418	.0358
28.....	.0526	.1014	.1102	0	0	.0870	.0605	.0960	.0539	.1845	.0925	.1164	0	.0836	.2017
29.....	.0241	.0358	.0536	0	0	.0319	.0305	.0508	.0373	.0579	.0394	.0487	0	.0393	.0579
30.....	.0108	.0121	.0200	0	0	.0127	.0147	.0166	.0147	.0197	.0135	.0155	0	.0140	.0192
31.....	.0073	.0092	.0151	0	0	.0093	.0089	.0139	.0108	.0155	.0112	.0134	0	.0110	.0166
32.....	.0331	.0447	.0743	0	0	.0419	.0410	.0649	.0501	.0703	.0498	.0638	0	.0521	.0713
33.....	.0037	.0052	.0109	0	0	.0049	.0046	.0073	.0055	.0088	.0064	.0072	0	.0067	.0088
34.....	.0046	.0073	.0102	0	0	.0064	.0053	.0093	.0068	.0099	.0072	.0100	0	.0088	.0098
35.....	.0150	.0236	.0345	0	0	.0266	.0135	.0341	.0247	.0368	.0321	.0343	0	.0359	.0393
36.....	.0130	.0204	.0300	0	0	.0174	.0162	.0280	.0204	.0335	.0225	.0273	0	.0233	.0335
37.....	.0133	.0175	.0321	0	0	.0157	.0155	.0253	.0190	.0282	.0195	.0238	0	.0193	.0283
38.....	.0131	.0195	.0304	0	0	.0164	.0158	.0256	.0187	.0325	.0242	.0284	0	.0226	.0325
39.....	.2048	.3009	.4449	0	0	.2637	.2591	.4341	.3184	.4895	.3361	.4130	0	.3340	.4861
Total/1/	1.5719	1.6112	2.7710	1.0000	1.0000	1.8225	1.7685	1.9712	1.8520	2.0342	1.7208	1.8085	1.0000	1.8569	2.1190

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	14.1301	14.1302	14.1401	14.1402	14.1403	14.1501	14.1502	14.1600	14.1700	14.1801	14.1802	14.1900	14.2001	14.2002	14.2003
1.....	0	0.0623	0.4831	0	0.0537	0.0442	0.0500	0.5993	0.0454	0.0191	0.0184	0.3499	0.0958	0	0
2.....	0	.0009	.0008	0	.0010	.0037	.0028	.0009	.0006	.0009	.0009	.0008	.0008	0	0
3.....	0	0	0	0	0	0	0	0	.0001	0	0	0	0	0	0
4.....	0	.0154	.0283	0	.0132	.0127	.0137	.0339	.0259	.0173	.0153	.0352	.0141	0	0
5.....	0	.0011	.0036	0	.0008	.0007	.0026	.0044	.0006	.0006	.0007	.0022	.0007	0	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	0	.0188	.0368	0	.0194	.0212	.0161	.0426	.0281	.0228	.0188	.0311	.0205	0	0
8.....	1.0000	1.1310	1.0360	1.0000	1.1511	1.0928	1.1697	1.0272	1.0260	1.0683	1.0775	1.3601	1.0991	1.0000	1.0000
9.....	0	.0002	.0002	0	.0001	.0002	.0002	.0002	.0002	.0001	.0001	.0002	.0001	0	0
10.....	0	.0042	.0087	0	.0036	.0043	.0046	.0055	.0038	.0054	.0044	.0053	.0041	0	0
11.....	0	.0478	.0201	0	.0689	.0474	.0085	.0210	.0106	.0255	.0492	.0200	.0352	0	0
12.....	0	.0091	.0072	0	.0061	.0217	.0042	.0051	.0052	.0082	.0067	.0076	.0151	0	0
13.....	0	.0609	.1161	0	.0469	.0429	.0666	.1372	.0522	.0513	.0500	.0996	.0457	0	0
14.....	0	.0080	.0009	0	.0014	.0036	.0019	.0009	.0005	.0014	.0026	.0026	.0016	0	0
15.....	0	.0037	.0033	0	.0040	.0029	.0016	.0039	.0023	.0024	.0031	.0029	.0028	0	0
16.....	0	.0019	.0026	0	.0022	.0017	.0016	.0030	.0018	.0020	.0018	.0028	.0054	0	0
17.....	0	.0009	.0010	0	.0006	.0008	.0008	.0012	.0006	.0006	.0006	.0010	.0006	0	0
18.....	0	.0025	.0032	0	.0019	.0106	.0021	.0036	.0022	.0020	.0018	.0035	.0035	0	0
19.....	0	.0026	.0031	0	.0016	.0016	.0014	.0034	.0026	.0024	.0024	.0032	.0023	0	0
20.....	0	.0014	.0021	0	.0013	.0012	.0010	.0025	.0014	.0019	.0015	.0021	.0015	0	0
21.....	0	.0044	.0053	0	.0039	.0034	.0028	.0062	.0043	.0062	.0050	.0059	.0046	0	0
22.....	0	.0011	.0019	0	.0011	.0012	.0011	.0023	.0013	.0015	.0012	.0015	.0012	0	0
23.....	0	.0002	.0002	0	.0001	.0001	.0001	.0002	.0001	.0002	.0001	.0002	.0002	0	0
24.....	0	.0009	.0009	0	.0007	.0009	.0005	.0010	.0007	.0011	.0009	.0010	.0010	0	0
25.....	0	.0492	.1301	0	.0616	.0435	.0711	.1422	.0823	.0536	.0442	.0911	.0496	0	0
26.....	0	.0173	.0192	0	.0166	.0237	.0112	.0194	.0132	.0242	.0169	.0176	.0237	0	0
27.....	0	.0429	.0540	0	.0327	.0363	.0300	.0601	.0791	.0443	.0402	.0815	.0384	0	0
28.....	0	.1299	.1205	0	.0905	.0776	.1161	.1320	.0873	.0713	.0779	.1131	.1183	0	0
29.....	0	.0476	.0602	0	.0424	.0370	.0307	.0710	.0473	.0673	.0553	.0657	.0497	0	0
30.....	0	.0154	.0222	0	.0152	.0134	.0128	.0255	.0158	.0200	.0166	.0258	.0180	0	0
31.....	0	.0132	.0210	0	.0139	.0114	.0105	.0242	.0137	.0163	.0133	.0176	.0133	0	0
32.....	0	.0599	.1123	0	.0549	.0471	.0417	.1361	.0609	.0811	.0662	.1013	.0672	0	0
33.....	0	.0074	.0108	0	.0143	.0140	.0052	.0180	.0144	.0097	.0075	.0097	.0078	0	0
34.....	0	.0088	.0094	0	.0100	.0062	.0053	.0109	.0078	.0121	.0091	.0113	.0092	0	0
35.....	0	.0350	.0422	0	.0313	.0323	.0266	.0462	.0345	.0449	.0384	.0420	.0446	0	0
36.....	0	.0276	.0304	0	.0272	.0208	.0185	.0345	.0251	.0357	.0292	.0344	.0287	0	0
37.....	0	.0238	.0281	0	.0211	.0183	.0149	.0331	.0233	.0330	.0267	.0318	.0245	0	0
38.....	0	.0249	.0311	0	.0217	.0191	.0179	.0362	.0273	.0415	.0289	.0353	.0263	0	0
39.....	0	.4071	.4868	0	.3634	.3147	.2576	.5722	.4043	.5717	.4636	.5522	.4245	0	0
Total/1/	1.0000	1.8820	2.4571	1.0000	1.8370	1.7206	1.7662	2.6949	1.7486	1.7959	1.7335	2.6170	1.8753	1.0000	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	14.2101	14.2102	14.2103	14.2104	14.2200	14.2300	14.2400	14.2500	14.2600	14.2700	14.2800	14.2900	14.3000	14.3100	14.3200
1.....	0.0146	0	0.0408	0.0071	0.0199	0.0449	0.6440	0	0.7277	0.0168	0.0030	0.0460	0.0078	0.0295	0.0766
2.....	.0006	0	.0006	.0003	.0007	.0005	.0010	0	.0010	.0442	.0004	.0005	.0014	.0009	.0026
3.....	0	0	0	0	0	0	0	0	0	0	0	0	.0001	0	0
4.....	.0131	0	.0122	.0056	.0145	.0126	.0289	0	.0279	.0236	.0085	.0123	.0246	.0116	.0177
5.....	.0013	0	.0015	.0006	.0015	.0011	.0027	0	.0077	.0020	.0003	.0009	.0007	.0004	.0020
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0189	0	.0147	.0063	.0240	.0158	.0349	0	.0405	.0270	.0103	.0177	.0535	.0194	.0194
8.....	1.0234	1.0000	1.0302	1.0227	1.0971	1.1745	1.0703	1.0000	1.0329	1.2399	1.0102	1.1481	1.0373	1.0346	1.0644
9.....	.0001	0	.0001	0	.0001	.0001	.0002	0	.0002	.0011	.0001	.0001	.0002	.0001	.0001
10.....	.0028	0	.0030	.0014	.0041	.0031	.0057	0	.0062	.0036	.0020	.0022	.0075	.0034	.0038
11.....	.0206	0	.0234	.0075	.0161	.0093	.0061	0	.0108	.0062	.0093	.0169	.1298	.0464	.0269
12.....	.0169	0	.0206	.0130	.0112	.0079	.0060	0	.0063	.0031	.0063	.0101	.0059	.0070	.0190
13.....	.0329	0	.0347	.0147	.0421	.0576	.1160	0	.0973	.0647	.0235	.0327	.0799	.0356	.0885
14.....	.0008	0	.0007	.0010	.0020	.0014	.0048	0	.0009	.0320	.0024	.0019	.0020	.0099	.0085
15.....	.0023	0	.0022	.0018	.0024	.0016	.0031	0	.0038	.0020	.0013	.0021	.0050	.0035	.0028
16.....	.0564	0	.0702	.0276	.0600	.0019	.0032	0	.0323	.0091	.0068	.0192	.0028	.0014	.0130
17.....	.0014	0	.0004	.0002	.0014	.0010	.0010	0	.0014	.0012	.0004	.0006	.0009	.0006	.0013
18.....	.0279	0	.0018	.0008	.0257	.0039	.0062	0	.0091	.0064	.0039	.0051	.0040	.0017	.0040
19.....	.0024	0	.0022	.0015	.0030	.0017	.0034	0	.0037	.0027	.0010	.0015	.0064	.0019	.0026
20.....	.0011	0	.0011	.0005	.0016	.0011	.0023	0	.0027	.0015	.0008	.0009	.0027	.0012	.0014
21.....	.0033	0	.0034	.0016	.0048	.0036	.0061	0	.0071	.0038	.0023	.0025	.0077	.0039	.0043
22.....	.0008	0	.0009	.0004	.0012	.0010	.0016	0	.0021	.0056	.0012	.0008	.0019	.0010	.0013
23.....	.0001	0	.0001	.0001	.0002	.0001	.0002	0	.0002	.0002	.0001	.0001	.0003	.0001	.0002
24.....	.0008	0	.0008	.0005	.0009	.0006	.0010	0	.0012	.0008	.0004	.0006	.0013	.0008	.0011
25.....	.0400	0	.0631	.0180	.0491	.0533	.0687	0	.0896	.0419	.1151	.0592	.0527	.0488	.0688
26.....	.0185	0	.0188	.0117	.0225	.0118	.0204	0	.0225	.0121	.0098	.0131	.0232	.0148	.0234
27.....	.0382	0	.0343	.0152	.0407	.0303	.0849	0	.0617	.0637	.0191	.0342	.1404	.0351	.0442
28.....	.0391	0	.0892	.0634	.0770	.0810	.1799	0	.1675	.0937	.1302	.0845	.0743	.0929	.0993
29.....	.0350	0	.0368	.0176	.0517	.0388	.0692	0	.0794	.0420	.0249	.0279	.0830	.0416	.0467
30.....	.0133	0	.0180	.0091	.0202	.0168	.0274	0	.0283	.0143	.0100	.0109	.0240	.0135	.0158
31.....	.0091	0	.0090	.0078	.0127	.0093	.0279	0	.0253	.0117	.0085	.0093	.0193	.0121	.0132
32.....	.0430	0	.0466	.0222	.0657	.0495	.1375	0	.1366	.0517	.0314	.0376	.1039	.0521	.0608
33.....	.0058	0	.0061	.0032	.0079	.0060	.0129	0	.0120	.0062	.0045	.0047	.0114	.0064	.0079
34.....	.0064	0	.0063	.0029	.0090	.0064	.0109	0	.0122	.0077	.0040	.0048	.0187	.0075	.0103
35.....	.0316	0	.0287	.0161	.0368	.0229	.0472	0	.0490	.0300	.0189	.0227	.0664	.0289	.0404
36.....	.0191	0	.0210	.0110	.0299	.0210	.0374	0	.0395	.0239	.0153	.0161	.0525	.0246	.0272
37.....	.0172	0	.0180	.0087	.0255	.0193	.0326	0	.0381	.0206	.0119	.0136	.0411	.0209	.0230
38.....	.0222	0	.0195	.0094	.0253	.0208	.0372	0	.0391	.0210	.0159	.0162	.0407	.0202	.0305
39.....	.2978	0	.3126	.1502	.4435	.3339	.5638	0	.6603	.3550	.2067	.2354	.7137	.3592	.3971
Total/1/	1.5808	1.0000	1.6811	1.3313	1.8087	1.7324	2.7429	1.0000	2.8237	1.9380	1.5138	1.6775	2.1352	1.6344	1.8729

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	15.0101	15.0102	15.0103	15.0200	16.0100	16.0200	16.0300	16.0400	17.0100	17.0200	17.0300	17.0400	17.0500	17.0600	17.0700
1.....	0	0	0	0	0.0807	0	0.1007	0	0.0037	0.0158	0	0	0.0055	0.0052	0
2.....	0	0	0	0	.0006	0	.0008	0	.0005	.0008	0	0	.0008	.0007	0
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	0	0	0	0	.0179	0	.0265	0	.0186	.0266	0	0	.0177	.0272	0
5.....	0	0	0	0	.0017	0	.0032	0	.0022	.0014	0	0	.0007	.0039	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	0	0	0	0	.0204	0	.0264	0	.0149	.0224	0	0	.0236	.0215	0
8.....	1.0000	1.0000	1.0000	1.0000	.0189	0	.0225	0	.0141	.0248	0	0	.0218	.0191	0
9.....	0	0	0	0	1.0107	1.0000	1.0011	1.0000	1.0026	1.0145	1.0000	1.0000	1.0069	1.0047	1.0000
10.....	0	0	0	0	.0041	0	.0048	0	.0033	.0051	0	0	.0046	.0070	0
11.....	0	0	0	0	.0068	0	.0103	0	.0097	.0053	0	0	.0088	.0084	0
12.....	0	0	0	0	.0036	0	.0042	0	.0046	.0046	0	0	.0044	.0045	0
13.....	0	0	0	0	.1152	0	.3420	0	.2120	.1187	0	0	.0541	.2830	0
14.....	0	0	0	0	.0025	0	.0017	0	.0035	.0014	0	0	.0007	.0038	0
15.....	0	0	0	0	.0018	0	.0023	0	.0015	.0029	0	0	.0029	.0020	0
16.....	0	0	0	0	.0031	0	.0019	0	.0012	.0017	0	0	.0015	.0019	0
17.....	0	0	0	0	.0009	0	.0016	0	.0011	.0009	0	0	.0007	.0022	0
18.....	0	0	0	0	.0021	0	.0030	0	.0021	.0023	0	0	.0019	.0032	0
19.....	0	0	0	0	.0025	0	.0034	0	.0023	.0039	0	0	.0027	.0034	0
20.....	0	0	0	0	.0016	0	.0017	0	.0013	.0021	0	0	.0017	.0019	0
21.....	0	0	0	0	.0045	0	.0054	0	.0034	.0058	0	0	.0053	.0046	0
22.....	0	0	0	0	.0011	0	.0014	0	.0011	.0019	0	0	.0014	.0013	0
23.....	0	0	0	0	.0002	0	.0002	0	.0001	.0002	0	0	.0002	.0002	0
24.....	0	0	0	0	.0008	0	.0009	0	.0008	.0010	0	0	.0009	.0008	0
25.....	0	0	0	0	.0362	0	.0464	0	.0454	.0773	0	0	.1502	.0527	0
26.....	0	0	0	0	.0171	0	.0161	0	.0124	.0188	0	0	.0170	.0153	0
27.....	0	0	0	0	.0481	0	.0688	0	.0410	.0538	0	0	.0450	.0542	0
28.....	0	0	0	0	.0787	0	.0780	0	.0665	.0801	0	0	.1964	.0713	0
29.....	0	0	0	0	.0487	0	.0589	0	.0369	.0650	0	0	.0578	.0496	0
30.....	0	0	0	0	.0159	0	.0195	0	.0135	.0199	0	0	.0191	.0170	0
31.....	0	0	0	0	.0118	0	.0145	0	.0089	.0160	0	0	.0143	.0117	0
32.....	0	0	0	0	.0653	0	.0800	0	.0464	.0749	0	0	.0711	.0621	0
33.....	0	0	0	0	.0072	0	.0088	0	.0055	.0086	0	0	.0085	.0071	0
34.....	0	0	0	0	.0081	0	.0102	0	.0062	.0106	0	0	.0095	.0090	0
35.....	0	0	0	0	.0488	0	.0394	0	.0270	.0390	0	0	.0418	.0384	0
36.....	0	0	0	0	.0274	0	.0314	0	.0210	.0341	0	0	.0345	.0279	0
37.....	0	0	0	0	.0240	0	.0291	0	.0183	.0311	0	0	.0284	.0245	0
38.....	0	0	0	0	.0249	0	.0295	0	.0203	.0402	0	0	.0318	.0288	0
39.....	0	0	0	0	.4160	0	.5044	0	.3181	.5389	0	0	.4936	.4251	0
Total/1/	1.0000	1.0000	1.0000	1.0000	1.7637	1.0000	2.0967	1.0000	1.6741	1.8333	1.0000	1.0000	1.8942	1.8802	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	17.0900	17.1001	17.1002	18.0101	18.0102	18.0201	18.0202	18.0203	18.0300	18.0400	19.0100	19.0200	19.0301	19.0302	19.0303
1.....	0.0056	0	0	0	0	0.0048	0.0055	0	0	0.0074	0.0057	0.0048	0.0050	0.0053	0.0049
2.....	.0008	0	0	0	0	.0007	.0007	0	0	.0052	.0006	.0006	.0006	.0006	.0006
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0188	0	0	0	0	.0129	.0192	0	0	.0108	.0102	.0105	.0116	.0101	.0107
5.....	.0015	0	0	0	0	.0005	.0015	0	0	.0002	.0002	.0003	.0003	.0005	.0002
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0300	0	0	0	0	.0146	.0208	0	0	.0157	.0144	.0125	.0162	.0186	.0224
8.....	.0230	0	0	0	0	.0200	.0228	0	0	.0211	.0202	.0156	.0190	.0203	.0191
9.....	1.0047	1.0000	1.0000	1.0000	1.0000	1.0027	1.0018	1.0000	1.0000	.0084	.0130	.0131	.0083	.0075	.0069
10.....	.0051	0	0	0	0	.0355	.0131	0	0	1.0548	1.0112	1.0051	1.0066	1.0141	1.0244
11.....	.0091	0	0	0	0	.0068	.0140	0	0	.0071	.0070	.0131	.0085	.0041	.0062
12.....	.0090	0	0	0	0	.0039	.0071	0	0	.0049	.0086	.0054	.0032	.0035	.0052
13.....	.1914	0	0	0	0	.0660	.1203	0	0	.0291	.0286	.0435	.0361	.0378	.0290
14.....	.0037	0	0	0	0	.0087	.0019	0	0	.0006	.0009	.0032	.0043	.0011	.0007
15.....	.0024	0	0	0	0	.0013	.0018	0	0	.0014	.0015	.0034	.0016	.0014	.0016
16.....	.0029	0	0	0	0	.0013	.0016	0	0	.0013	.0013	.0011	.0014	.0014	.0014
17.....	.0010	0	0	0	0	.0005	.0009	0	0	.0003	.0003	.0003	.0004	.0005	.0004
18.....	.0026	0	0	0	0	.0015	.0021	0	0	.0013	.0012	.0012	.0015	.0015	.0017
19.....	.0040	0	0	0	0	.0022	.0028	0	0	.0011	.0018	.0014	.0017	.0015	.0016
20.....	.0019	0	0	0	0	.0014	.0016	0	0	.0017	.0017	.0014	.0019	.0014	.0018
21.....	.0057	0	0	0	0	.0050	.0057	0	0	.0052	.0049	.0038	.0047	.0049	.0047
22.....	.0019	0	0	0	0	.0012	.0014	0	0	.0012	.0012	.0009	.0025	.0011	.0011
23.....	.0002	0	0	0	0	.0001	.0002	0	0	.0001	.0001	.0001	.0001	.0002	.0001
24.....	.0011	0	0	0	0	.0009	.0009	0	0	.0009	.0010	.0008	.0008	.0008	.0008
25.....	.0687	0	0	0	0	.0310	.0382	0	0	.0327	.0321	.0315	.0968	.0277	.0649
26.....	.0216	0	0	0	0	.0146	.0151	0	0	.0229	.0223	.0159	.0135	.0147	.0165
27.....	.0526	0	0	0	0	.0345	.0459	0	0	.0309	.0304	.0317	.0319	.0294	.0327
28.....	.0729	0	0	0	0	.0453	.0486	0	0	.0733	.0906	.0969	.0760	.0659	.0574
29.....	.0611	0	0	0	0	.0532	.0612	0	0	.0558	.0528	.0408	.0502	.0527	.0505
30.....	.0257	0	0	0	0	.0150	.0186	0	0	.0190	.0196	.0138	.0159	.0152	.0290
31.....	.0141	0	0	0	0	.0147	.0157	0	0	.0131	.0134	.0118	.0138	.0132	.0127
32.....	.0744	0	0	0	0	.0663	.0733	0	0	.0698	.0783	.0528	.0631	.0701	.0705
33.....	.0097	0	0	0	0	.0076	.0107	0	0	.0092	.0102	.0074	.0069	.0075	.0180
34.....	.0108	0	0	0	0	.0091	.0108	0	0	.0097	.0091	.0070	.0089	.0090	.0315
35.....	.0440	0	0	0	0	.0285	.0348	0	0	.0320	.0433	.0265	.0293	.0290	.0305
36.....	.0340	0	0	0	0	.0277	.0321	0	0	.0307	.0314	.0245	.0286	.0294	.0284
37.....	.0304	0	0	0	0	.0268	.0307	0	0	.0279	.0265	.0204	.0252	.0264	.0250
38.....	.0290	0	0	0	0	.0245	.0305	0	0	.0264	.0298	.0215	.0248	.0239	.0237
39.....	.5272	0	0	0	0	.4653	.5322	0	0	.4849	.4593	.3530	.4365	.4588	.4342
Total/1/	1.8751	1.0000	1.0000	1.0000	1.0000	1.5912	1.7140	1.0000	1.0000	1.6332	1.6255	1.5444	1.6210	1.5522	1.6369

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	19.0304	19.0305	19.0306	20.0100	20.0200	20.0300	20.0400	20.0501	20.0502	20.0600	20.0701	20.0702	20.0800	20.0901	20.0902
1.....	0.0049	0	0.0062	0.1253	0.0614	0.0259	0.0496	0.0199	0.0131	0.0456	0.0221	0.0148	0.0301	0.0272	0.0122
2.....	.0006	0	.0007	.2566	.1129	.0387	.0886	.0280	.0129	.0812	.0331	.0188	.0497	.0424	.0150
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0106	0	.0108	.0189	.0210	.0282	.0238	.0162	.0180	.0205	.0177	.0157	.0405	.0203	.0311
5.....	.0005	0	.0005	.0012	.0008	.0006	.0010	.0006	.0005	.0008	.0006	.0009	.0043	.0006	.0014
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0132	0	.0150	.0434	.0386	.0325	.0499	.0288	.0257	.0352	.0319	.0246	.0411	.0427	.0313
8.....	.0196	0	.0208	.0250	.0286	.0318	.0312	.0254	.0288	.0268	.0265	.0237	.0254	.0295	.0216
9.....	.0052	0	.0067	.0015	.0008	.0004	.0007	.0003	.0002	.0006	.0003	.0006	.0004	.0004	.0002
10.....	1.0067	1.0000	1.0113	.0048	.0059	.0068	.0065	.0054	.0062	.0056	.0056	.0051	.0053	.0062	.0046
11.....	.0126	0	.0179	.0036	.0042	.0098	.0046	.0061	.0070	.0046	.0073	.0067	.0057	.0056	.0043
12.....	.0046	0	.0037	.0036	.0046	.0055	.0054	.0049	.0058	.0049	.0049	.0053	.0053	.0052	.0054
13.....	.0530	0	.0545	.0681	.0629	.0762	.0696	.0474	.0592	.0636	.0570	.0557	.2041	.0571	.1340
14.....	.0156	0	.0026	.0018	.0013	.0010	.0048	.0019	.0076	.0014	.0009	.0027	.0011	.0010	.0029
15.....	.0017	0	.0020	1.0549	1.5292	1.3902	1.4376	1.3865	1.2444	1.5227	1.4471	1.3025	1.4441	1.4312	1.1596
16.....	.0016	0	.0014	.0041	.0032	.0027	.0044	.0068	.0024	.0028	.0026	.0134	.0028	.0029	.0030
17.....	.0005	0	.0005	.0027	.0017	.0011	.0016	.0013	.0009	.0014	.0017	.0029	.0026	.0021	.0013
18.....	.0015	0	.0014	.0080	.0053	.0037	.0054	.0067	.0046	.0048	.0174	.0368	.0053	.0054	.0058
19.....	.0012	0	.0016	.0102	.0062	.0052	.0062	.0071	.0035	.0052	.0039	.0057	.0051	.0052	.0040
20.....	.0018	0	.0021	.0026	.0024	.0024	.0026	.0022	.0023	.0022	.0027	.0035	.0021	.0024	.0018
21.....	.0049	0	.0046	.0054	.0068	.0078	.0076	.0062	.0072	.0064	.0065	.0059	.0061	.0072	.0053
22.....	.0012	0	.0011	.0015	.0018	.0020	.0019	.0017	.0018	.0017	.0019	.0018	.0018	.0019	.0014
23.....	.0002	0	.0001	.0002	.0002	.0002	.0002	.0002	.0003	.0002	.0002	.0004	.0002	.0002	.0002
24.....	.0008	0	.0008	.0009	.0011	.0012	.0012	.0011	.0013	.0010	.0011	.0010	.0011	.0012	.0009
25.....	.0284	0	.0272	.0326	.0662	.0743	.0661	.0706	.0622	.0734	.0831	.0646	.0860	.0787	.0776
26.....	.0122	0	.0143	.0126	.0172	.0210	.0193	.0195	.0201	.0174	.0190	.0190	.0187	.0203	.0165
27.....	.0294	0	.0315	.0291	.0512	.0614	.0459	.0444	.0488	.0570	.0440	.0382	.0620	.0512	.0906
28.....	.0628	0	.0629	.0591	.0859	.1252	.0862	.1396	.1059	.1105	.1414	.1309	.1255	.1267	.0785
29.....	.0522	0	.0495	.0579	.0736	.0871	.0823	.0670	.0770	.0694	.0704	.0628	.0661	.0779	.0577
30.....	.0151	0	.0161	.0177	.0231	.0257	.0254	.0222	.0238	.0228	.0238	.0234	.0244	.0263	.0209
31.....	.0129	0	.0126	.0139	.0189	.0231	.0261	.0181	.0246	.0175	.0241	.0214	.0213	.0187	.0151
32.....	.0643	0	.0612	.0644	.0844	.0990	.0937	.0805	.0949	.0802	.0844	.0755	.0788	.0972	.0676
33.....	.0084	0	.0070	.0090	.0105	.0118	.0113	.0098	.0108	.0100	.0126	.0094	.0099	.0111	.0082
34.....	.0091	0	.0085	.0092	.0121	.0145	.0140	.0109	.0125	.0113	.0114	.0103	.0111	.0134	.0097
35.....	.0284	0	.0297	.0319	.0412	.0515	.0475	.0399	.0416	.0384	.0429	.0418	.0516	.0495	.0367
36.....	.0267	0	.0283	.0277	.0369	.0460	.0422	.0366	.0407	.0358	.0377	.0342	.0361	.0420	.0311
37.....	.0263	0	.0248	.0262	.0353	.0412	.0394	.0330	.0383	.0336	.0345	.0310	.0319	.0380	.0280
38.....	.0278	0	.0258	.0337	.0390	.0535	.0469	.0346	.0396	.0358	.0363	.0333	.0349	.0401	.0321
39.....	.4567	0	.4295	.4534	.6120	.7147	.6831	.5721	.6639	.5834	.5977	.5372	.5535	.6587	.4864
Total/1/	1.5664	1.0000	1.5657	2.0695	2.4964	2.4095	2.4508	2.2314	2.0941	2.4526	2.3587	2.1442	2.5424	2.3889	2.0175

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	20.0903	21.0000	22.0101	22.0102	22.0103	22.0200	22.0300	22.0400	23.0100	23.0200	23.0300	23.0400	23.0500	23.0600	23.0700
1.....	0.0164	0	0.0136	0	0.0129	0.0099	0	0.0115	0.0114	0	0.0085	0.0108	0	0.0067	0
2.....	.0190	0	.0135	0	.0118	.0053	0	.0032	.0108	0	.0050	.0084	0	.0025	0
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0251	0	.0188	0	.0204	.0143	0	.0133	.0175	0	.0165	.0203	0	.0136	0
5.....	.0007	0	.0006	0	.0007	.0004	0	.0006	.0004	0	.0005	.0012	0	.0006	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0289	0	.0291	0	.0391	.0195	0	.0213	.0254	0	.0284	.0276	0	.0199	0
8.....	.0252	0	.0286	0	.0308	.0268	0	.0298	.0267	0	.0268	.0288	0	.0204	0
9.....	.0003	0	.0004	0	.0003	.0049	0	.0063	.0007	0	.0007	.0002	0	.0073	0
10.....	.0055	0	.0062	0	.0066	.0053	0	.0105	.0057	0	.0057	.0061	0	.0044	0
11.....	.0096	0	.0130	0	.0091	.0069	0	.0070	.0129	0	.0112	.0108	0	.0064	0
12.....	.0051	0	.0073	0	.0071	.0052	0	.0092	.0101	0	.0068	.0069	0	.0088	0
13.....	.0769	0	.0604	0	.0717	.0453	0	.0483	.0520	0	.0506	.0810	0	.0475	0
14.....	.0025	0	.0037	0	.0149	.0122	0	.0113	.0044	0	.0096	.0148	0	.0112	0
15.....	1.1945	1.0000	1.2211	1.0000	1.2212	1.0950	1.0000	1.0550	1.1852	1.0000	1.0812	1.1525	1.0000	1.0647	1.0000
16.....	.0036	0	.0062	0	.0031	.0019	0	.0018	.0024	0	.0032	.0049	0	.0018	0
17.....	.0016	0	.0013	0	.0016	.0026	0	.0112	.0028	0	.0109	.0031	0	.0157	0
18.....	.0053	0	.0045	0	.0066	.0065	0	.0221	.0035	0	.0052	.0049	0	.0034	0
19.....	.0044	0	.0041	0	.0053	.0032	0	.0028	.0028	0	.0031	.0118	0	.0022	0
20.....	.0021	0	.0023	0	.0025	.0021	0	.0019	.0022	0	.0023	.0031	0	.0017	0
21.....	.0062	0	.0070	0	.0074	.0060	0	.0051	.0067	0	.0065	.0071	0	.0051	0
22.....	.0016	0	.0018	0	.0019	.0016	0	.0018	.0016	0	.0016	.0018	0	.0012	0
23.....	.0002	0	.0002	0	.0003	.0002	0	.0002	.0002	0	.0002	.0002	0	.0002	0
24.....	.0011	0	.0012	0	.0013	.0011	0	.0011	.0012	0	.0011	.0013	0	.0010	0
25.....	.0605	0	.0641	0	.0653	.0530	0	.0431	.0659	0	.0658	.0641	0	.0376	0
26.....	.0178	0	.0232	0	.0237	.0229	0	.0220	.0293	0	.0266	.0252	0	.0205	0
27.....	.0792	0	.0509	0	.0554	.0372	0	.0347	.0442	0	.0479	.0497	0	.0363	0
28.....	.0916	0	.1162	0	.1089	.0890	0	.0859	.0938	0	.0861	.0952	0	.0816	0
29.....	.0671	0	.0763	0	.0802	.0638	0	.0550	.0718	0	.0700	.0771	0	.0541	0
30.....	.0226	0	.0240	0	.0237	.0289	0	.0201	.0263	0	.0245	.0266	0	.0168	0
31.....	.0167	0	.0258	0	.0303	.0193	0	.0139	.0225	0	.0267	.0263	0	.0132	0
32.....	.0814	0	.0922	0	.0958	.0787	0	.0740	.0873	0	.0898	.0982	0	.0661	0
33.....	.0095	0	.0110	0	.0114	.0125	0	.0086	.0109	0	.0125	.0155	0	.0081	0
34.....	.0114	0	.0131	0	.0151	.0106	0	.0091	.0144	0	.0117	.0126	0	.0093	0
35.....	.0403	0	.0570	0	.0588	.0426	0	.0707	.0875	0	.0682	.0598	0	.0339	0
36.....	.0368	0	.0421	0	.0482	.0358	0	.0338	.0376	0	.0428	.0414	0	.0294	0
37.....	.0329	0	.0376	0	.0394	.0315	0	.0271	.0355	0	.0346	.0380	0	.0269	0
38.....	.0353	0	.0376	0	.0413	.0389	0	.0354	.0376	0	.0403	.0435	0	.0274	0
39.....	.5718	0	.6513	0	.6826	.5469	0	.4703	.6153	0	.5998	.6585	0	.4670	0
Total/1/	2.0390	1.0000	2.1164	1.0000	2.1740	1.8409	1.0000	1.8088	2.0511	1.0000	1.9332	2.0808	1.0000	1.7077	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	24.0100	24.0200	24.0300	24.0400	24.0500	24.0602	24.0701	24.0702	24.0703	24.0704	24.0705	24.0706	25.0000	26.0100	26.0200
1.....	0	0.0137	0.0204	0	0.0068	0.0118	0.0072	0.0081	0.0103	0	0	0.0080	0.0113	0.0090	0.0081
2.....	0	.0169	.0303	0	.0050	.0100	.0043	.0045	.0103	0	0	.0053	.0114	.0036	.0031
3.....	0	.0001	.0001	0	0	0	0	0	0	0	0	0	0	0	0
4.....	0	.0373	.0513	0	.0201	.0560	.0277	.0312	.0273	0	0	.0255	.0337	.0217	.0169
5.....	0	.0026	.0023	0	.0011	.0180	.0026	.0030	.0011	0	0	.0016	.0015	.0007	.0007
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	0	.0371	.0447	0	.0213	.0390	.0258	.0305	.0330	0	0	.0270	.0394	.0268	.0219
8.....	0	.0231	.0242	0	.0187	.0298	.0221	.0247	.0241	0	0	.0239	.0258	.0340	.0333
9.....	0	.0007	.0007	0	.0012	.0008	.0004	.0008	.0004	0	0	.0003	.0004	.0002	.0002
10.....	0	.0048	.0049	0	.0040	.0056	.0046	.0052	.0050	0	0	.0050	.0054	.0068	.0054
11.....	1.0000	1.0389	1.0100	1.0000	1.2800	1.0152	1.2106	1.2364	1.3895	1.0000	1.0000	1.2597	1.4057	.1591	.1140
12.....	0	.0052	.0053	0	.0107	.0047	.0055	.0082	.0045	0	0	.0062	.0049	1.0155	1.0858
13.....	0	.1263	.1583	0	.0904	.1485	.1558	.2793	.0835	0	0	.1138	.1166	.0613	.0529
14.....	0	.0036	.0011	0	.0056	.0010	.0125	.0106	.0062	0	0	.0121	.0018	.0013	.0013
15.....	0	.0973	.1886	0	.0279	.0803	.0247	.0245	.0617	0	0	.0299	.0690	.0170	.0124
16.....	0	.0029	.0034	0	.0018	.0059	.0033	.0026	.0024	0	0	.0022	.0027	.0022	.0019
17.....	0	.0018	.0021	0	.0009	.0018	.0023	.0020	.0012	0	0	.0014	.0021	.0008	.0007
18.....	0	.0070	.0089	0	.0031	.0046	.0038	.0048	.0045	0	0	.0037	.0053	.0029	.0026
19.....	0	.0035	.0047	0	.0023	.0053	.0032	.0040	.0038	0	0	.0031	.0044	.0022	.0016
20.....	0	.0018	.0020	0	.0018	.0021	.0018	.0020	.0018	0	0	.0019	.0020	.0028	.0020
21.....	0	.0053	.0057	0	.0045	.0064	.0053	.0059	.0057	0	0	.0058	.0062	.0078	.0060
22.....	0	.0015	.0016	0	.0012	.0018	.0014	.0016	.0015	0	0	.0016	.0016	.0020	.0016
23.....	0	.0002	.0002	0	.0002	.0002	.0002	.0003	.0002	0	0	.0002	.0002	.0004	.0002
24.....	0	.0009	.0010	0	.0009	.0011	.0010	.0011	.0009	0	0	.0010	.0011	.0015	.0015
25.....	0	.0753	.0845	0	.0632	.1013	.0689	.0788	.0870	0	0	.0759	.0964	.0965	.1063
26.....	0	.0172	.0171	0	.0201	.0188	.0182	.0225	.0171	0	0	.0187	.0185	.0485	.0351
27.....	0	.0976	.1077	0	.0499	.1711	.0596	.0700	.0640	0	0	.0627	.0737	.0555	.0421
28.....	0	.1026	.1022	0	.1242	.1082	.0928	.1129	.0853	0	0	.1025	.0815	.0836	.0718
29.....	0	.0580	.0621	0	.0489	.0697	.0573	.0642	.0621	0	0	.0625	.0675	.0840	.0656
30.....	0	.0188	.0203	0	.0162	.0210	.0181	.0206	.0190	0	0	.0192	.0204	.0298	.0258
31.....	0	.0145	.0161	0	.0128	.0172	.0142	.0162	.0154	0	0	.0156	.0170	.0217	.0170
32.....	0	.0704	.0752	0	.0606	.0854	.0701	.0812	.0774	0	0	.0791	.0819	.1053	.0978
33.....	0	.0089	.0094	0	.0097	.0103	.0104	.0116	.0109	0	0	.0112	.0094	.0201	.0183
34.....	0	.0097	.0106	0	.0096	.0126	.0104	.0167	.0102	0	0	.0101	.0114	.0145	.0128
35.....	0	.0405	.0428	0	.0337	.0505	.0364	.0448	.0388	0	0	.0510	.0435	.0787	.0959
36.....	0	.0305	.0321	0	.0271	.0386	.0312	.0364	.0338	0	0	.0338	.0360	.0642	.0980
37.....	0	.0282	.0299	0	.0240	.0338	.0283	.0315	.0306	0	0	.0309	.0330	.0416	.0324
38.....	0	.0337	.0370	0	.0267	.0375	.0300	.0354	.0320	0	0	.0329	.0361	.0451	.0350
39.....	0	.4900	.5186	0	.4167	.5874	.4905	.5471	.5307	0	0	.5364	.5720	.7225	.5629
Total/1/	1.0000	2.0381	2.2190	1.0000	2.0362	2.2258	2.0721	2.3341	2.2627	1.0000	1.0000	2.1451	2.3789	2.1688	2.1278

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	26.0301	26.0302	26.0400	26.0501	26.0502	26.0601	26.0602	26.0700	26.0801	26.0802	26.0803	26.0804	26.0805	27.0100	27.0201
1.....	0.0055	0.0083	0.0069	0.0078	0.0071	0.0077	0.0076	0.0067	0.0082	0.0088	0.0076	0.0076	0.0087	0.0090	0.0045
2.....	.0017	.0036	.0018	.0035	.0009	.0049	.0032	.0023	.0027	.0026	.0010	.0010	.0013	.0009	.0006
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	.0001	0
4.....	.0121	.0197	.0160	.0215	.0188	.0198	.0189	.0165	.0220	.0192	.0163	.0173	.0198	.0741	.0966
5.....	.0004	.0008	.0005	.0013	.0012	.0009	.0006	.0006	.0009	.0007	.0004	.0006	.0009	.0207	.0948
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0172	.0336	.0196	.0253	.0237	.0260	.0257	.0217	.0229	.0242	.0202	.0202	.0214	.0353	.0448
8.....	.0214	.0301	.0277	.0271	.0304	.0236	.0274	.0245	.0315	.0349	.0334	.0336	.0378	.0223	.0171
9.....	.0002	.0004	.0003	.0002	.0002	.0003	.0005	.0002	.0002	.0005	.0002	.0002	.0002	.0001	.0001
10.....	.0042	.0064	.0059	.0057	.0066	.0050	.0058	.0051	.0067	.0072	.0071	.0070	.0073	.0044	.0035
11.....	.0668	.1544	.0649	.1688	.0059	.2609	.1357	.1038	.1122	.0711	.0045	.0059	.0045	.0144	.0066
12.....	1.0528	1.0141	1.0706	1.0166	1.0098	1.0106	1.0176	1.0146	1.0085	1.0112	1.0056	1.0073	1.0070	.0053	.0040
13.....	.0360	.0633	.0497	.0826	.0739	.0628	.0568	.0502	.0896	.0637	.0480	.0594	.0712	1.3739	1.2660
14.....	.0008	.0034	.0031	.0038	.0008	.0014	.0051	.0024	.0011	.0021	.0008	.0113	.0010	.0026	.0023
15.....	.0075	.0182	.0077	.0179	.0020	.0266	.0163	.0110	.0123	.0115	.0017	.0019	.0019	.0030	.0025
16.....	.0014	.0023	.0017	.0020	.0020	.0019	.0021	.0017	.0020	.0022	.0020	.0029	.0021	.0029	.0025
17.....	.0005	.0009	.0006	.0010	.0015	.0009	.0019	.0006	.0010	.0012	.0103	.0090	.0388	.0127	.0025
18.....	.0016	.0032	.0023	.0030	.0033	.0031	.0040	.0022	.0026	.0026	.0018	.0021	.0027	.0108	.0082
19.....	.0012	.0020	.0015	.0020	.0020	.0019	.0020	.0017	.0022	.0023	.0020	.0022	.0026	.0085	.0041
20.....	.0015	.0022	.0020	.0020	.0023	.0018	.0020	.0018	.0021	.0022	.0022	.0024	.0031	.0020	.0017
21.....	.0048	.0073	.0068	.0065	.0076	.0057	.0067	.0058	.0076	.0083	.0082	.0080	.0085	.0049	.0040
22.....	.0011	.0018	.0016	.0016	.0018	.0014	.0016	.0015	.0018	.0019	.0019	.0018	.0019	.0017	.0015
23.....	.0003	.0006	.0004	.0004	.0022	.0002	.0002	.0003	.0003	.0003	.0020	.0012	.0016	.0004	.0002
24.....	.0010	.0013	.0012	.0012	.0041	.0036	.0012	.0011	.0012	.0015	.0013	.0013	.0013	.0009	.0008
25.....	.0620	.0860	.0469	.0603	.0438	.0603	.0543	.0589	.0530	.0529	.0400	.0392	.0821	.0802	.1160
26.....	.0231	.0225	.0246	.0239	.0241	.0199	.0245	.0234	.0207	.0205	.0222	.0223	.0194	.0181	.0144
27.....	.0310	.0576	.0422	.0560	.0521	.0545	.0491	.0438	.0580	.0541	.0461	.0494	.0595	.1285	.1722
28.....	.0804	.0772	.0686	.0910	.0696	.1111	.0795	.1453	.0730	.0611	.0567	.0577	.0639	.0797	.0826
29.....	.0517	.0792	.0730	.0708	.0816	.0615	.0721	.0627	.0819	.0891	.0877	.0854	.0884	.0553	.0449
30.....	.0201	.0256	.0238	.0225	.0247	.0221	.0225	.0223	.0246	.0262	.0249	.0270	.0315	.0197	.0180
31.....	.0137	.0189	.0185	.0183	.0732	.0160	.0165	.0170	.0216	.0213	.0212	.1573	.0193	.0142	.0130
32.....	.0937	.0962	.0972	.0874	.0987	.0760	.0879	.1029	.1036	.1189	.1113	.1122	.1198	.0734	.0614
33.....	.0126	.0119	.0136	.0131	.0144	.0124	.0133	.0132	.0144	.0152	.0144	.0152	.0119	.0100	.0070
34.....	.0086	.0128	.0113	.0114	.0126	.0099	.0117	.0102	.0131	.0144	.0140	.0146	.0201	.0091	.0080
35.....	.0443	.0465	.0439	.0435	.0378	.0439	.0430	.0468	.0452	.0555	.0480	.0535	.0783	.0559	.0406
36.....	.0424	.0444	.0408	.0406	.0419	.0348	.0412	.0399	.0472	.0558	.0496	.0532	.0777	.0350	.0256
37.....	.0256	.0394	.0365	.0351	.0413	.0304	.0357	.0311	.0409	.0449	.0442	.0437	.0447	.0262	.0214
38.....	.0265	.0390	.0342	.0372	.0385	.0326	.0366	.0346	.0438	.0408	.0416	.0424	.0434	.0333	.0281
39.....	.4450	.6833	.6343	.6095	.7110	.5279	.6207	.5402	.7098	.7791	.7675	.7445	.7754	.4544	.3710
Total/1/	1.7756	2.0353	1.8679	2.0133	1.8622	2.0564	1.9308	1.9285	1.9807	1.9508	1.8003	1.9776	2.0057	2.2491	2.2223

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	27.0202	27.0300	27.0401	27.0402	27.0403	27.0404	27.0405	27.0406	28.0100	28.0200	28.0300	28.0400	29.0100	29.0201	29.0202
1.....	0.0058	0.0063	0.0234	0.0073	0	0.0064	0.0038	0.0321	0.0068	0.0078	0	0.0072	0.0105	0.0099	0.0088
2.....	.0010	.0008	.0377	.0036	0	.0013	.0007	.0026	.0010	.0014	0	.0009	.0014	.0017	.0010
3.....	0	0	0	0	0	0	0	0	0	.0001	0	.0001	0	0	0
4.....	.0504	.0430	.0285	.0522	0	.0736	.2054	.0508	.0809	.0780	0	.0580	.0209	.0412	.0191
5.....	.0301	.0155	.0015	.0150	0	.0119	.0009	.0284	.0131	.0162	0	.0114	.0024	.0080	.0027
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0373	.0305	.0520	.0339	0	.0333	.0709	.0341	.0387	.0378	0	.0330	.0224	.0243	.0163
8.....	.0264	.0204	.0267	.0260	0	.0300	.0151	.0468	.0234	.0246	0	.0261	.0340	.0501	.0188
9.....	.0002	.0001	.0003	.0001	0	.0002	.0001	.0002	.0002	.0002	0	.0003	.0001	.0001	.0001
10.....	.0094	.0039	.0057	.0043	0	.0045	.0034	.0047	.0047	.0047	0	.0054	.0046	.0038	.0032
11.....	.0282	.0291	.0722	.0165	0	.0097	.0310	.0184	.0158	.0183	0	.0147	.0246	.0290	.0243
12.....	.0071	.0166	.0113	.0127	0	.0072	.0110	.0077	.0093	.0050	0	.0068	.0216	.0329	.0395
13.....	1.5027	1.3248	1.1558	1.4414	1.0000	1.5511	1.3790	1.3518	1.5289	1.6632	1.0000	1.4981	1.1151	1.3322	1.1329
14.....	.0030	.0021	.0038	.0032	0	.0023	.0009	.0030	.0074	.0016	0	.0039	.0049	.0071	.0152
15.....	.0032	.0033	.1279	.0037	0	.0034	.0032	.0049	.0035	.0051	0	.0029	.0026	.0035	.0047
16.....	.0057	.0071	.0032	.0036	0	.0026	.0030	.0056	.0030	.0027	0	.0026	.0121	.0035	.0052
17.....	.0033	.0049	.0040	.0089	0	.0057	.0013	.0216	.0060	.0072	0	.0050	.0017	.0041	.0025
18.....	.0123	.0413	.0135	.0504	0	.0297	.0059	.0091	.0111	.0162	0	.0063	.0073	.0116	.0273
19.....	.0059	.0034	.0088	.0047	0	.0046	.0112	.0040	.0055	.0074	0	.0048	.0024	.0058	.0024
20.....	.0019	.0016	.0023	.0018	0	.0019	.0020	.0021	.0020	.0019	0	.0020	.0018	.0016	.0016
21.....	.0048	.0043	.0063	.0048	0	.0051	.0037	.0050	.0053	.0053	0	.0062	.0052	.0043	.0037
22.....	.0016	.0013	.0017	.0015	0	.0016	.0013	.0016	.0017	.0018	0	.0017	.0014	.0014	.0011
23.....	.0003	.0002	.0003	.0003	0	.0003	.0002	.0003	.0003	.0003	0	.0003	.0003	.0002	.0002
24.....	.0009	.0009	.0012	.0011	0	.0010	.0008	.0010	.0011	.0011	0	.0012	.0013	.0015	.0016
25.....	.1555	.0790	.0673	.0994	0	.0838	.0612	.1207	.0771	.0882	0	.0720	.0467	.0791	.0509
26.....	.0216	.0204	.0231	.0241	0	.0241	.0184	.0198	.0212	.0168	0	.0194	.0334	.0359	.0416
27.....	.0824	.0767	.0797	.0659	0	.0709	.1659	.0794	.0978	.1078	0	.0921	.0447	.0566	.0375
28.....	.1292	.0964	.0927	.0812	0	.0842	.0588	.1077	.0842	.0833	0	.0903	.0748	.0936	.0756
29.....	.0537	.0476	.0691	.0532	0	.0561	.0421	.0550	.0579	.0584	0	.0675	.0563	.0482	.0395
30.....	.0216	.0289	.0264	.0185	0	.0196	.0166	.0211	.0195	.0201	0	.0213	.0256	.0167	.0145
31.....	.0150	.0132	.0165	.0144	0	.0150	.0117	.0151	.0150	.0157	0	.0169	.0149	.0129	.0111
32.....	.0736	.0639	.0854	.0747	0	.0774	.0675	.0738	.0781	.0791	0	.0888	.0888	.0621	.0532
33.....	.0147	.0114	.0103	.0087	0	.0090	.0068	.0089	.0091	.0091	0	.0112	.0098	.0092	.0085
34.....	.0093	.0078	.0124	.0088	0	.0095	.0085	.0093	.0113	.0096	0	.0108	.0120	.0076	.0097
35.....	.0584	.0603	.0509	.0439	0	.0446	.0406	.0450	.0535	.0449	0	.0446	.0737	.0495	.0583
36.....	.0353	.0316	.0392	.0314	0	.0339	.0238	.0327	.0367	.0335	0	.0371	.0480	.0289	.0291
37.....	.0257	.0230	.0334	.0258	0	.0275	.0197	.0266	.0281	.0284	0	.0333	.0278	.0230	.0195
38.....	.0328	.0285	.0522	.0292	0	.0296	.0229	.0396	.0362	.0343	0	.0339	.0359	.0269	.0229
39.....	.4454	.3993	.5804	.4482	0	.4771	.3415	.4622	.4879	.4930	0	.5783	.4830	.3990	.3382
Total/1/	2.4702	2.1506	2.2467	2.2762	1.0000	2.3727	2.3195	2.2906	2.3956	2.5371	1.0000	2.3382	1.8908	2.1280	1.8041

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	29.0203	29.0300	30.0000	31.0101	31.0102	31.0103	31.0200	31.0300	32.0100	32.0200	32.0301	32.0302	32.0400	32.0500	33.0001
1.....	0	0.0048	0.0094	0.0025	0.0046	0.0027	0.0047	0.0054	0	0.0071	0	0.0068	0.0066	0.0067	0
2.....	0	.0011	.0027	.0004	.0016	.0004	.0007	.0017	0	.0009	0	.0010	.0013	.0009	0
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	0	.0170	.0542	.4052	.1044	.2512	.1366	.1010	0	.0248	0	.0353	.0387	.0304	0
5.....	0	.0025	.0147	.0015	.0022	.0011	.1044	.0185	0	.0022	0	.0042	.0054	.0031	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	0	.0153	.0313	.0423	.0312	.0379	.0332	.0394	0	.0236	0	.0292	.0296	.0293	0
8.....	0	.0231	.0260	.0096	.0280	.0108	.0179	.0199	0	.0278	0	.0272	.0241	.0259	0
9.....	0	.0001	.0001	.0001	.0001	.0001	.0001	.0009	0	.0047	0	.0006	.0004	.0042	0
10.....	0	.0033	.0044	.0020	.0028	.0023	.0038	.0042	0	.0063	0	.0058	.0051	.0056	0
11.....	0	.0296	.0129	.0031	.0269	.0051	.0131	.0968	0	.0151	0	.0252	.0299	.0097	0
12.....	0	.0535	.0103	.0040	.0077	.0064	.0052	.0050	0	.0048	0	.0075	.0067	.0046	0
13.....	1.0000	1.1052	1.4406	1.1190	1.3321	1.6128	1.3585	1.2581	0	.1755	0	.2850	.4401	.2460	0
14.....	0	.0098	.0021	.0006	.0014	.0005	.0030	.0024	1.0000	1.0034	1.0000	1.0071	1.0131	1.0033	1.0000
15.....	0	.0032	.0031	.0013	.0046	.0016	.0049	.0133	0	.0028	0	.0030	.0069	.0024	0
16.....	0	.0181	.0117	.0021	.0028	.0019	.0152	.0584	0	.0021	0	.0039	.0074	.0031	0
17.....	0	.0016	.0074	.0015	.0026	.0012	.0017	.0015	0	.0014	0	.0070	.0037	.0035	0
18.....	0	.0074	.0222	.0057	.0273	.0043	.0105	.0039	0	.0031	0	.0052	.0064	.0039	0
19.....	0	.0020	.0041	.0051	.0033	.0039	.0045	.0035	0	.0021	0	.0055	.0070	.0041	0
20.....	0	.0014	.0018	.0014	.0015	.0013	.0018	.0018	0	.0020	0	.0021	.0031	.0020	0
21.....	0	.0038	.0050	.0022	.0050	.0026	.0044	.0048	0	.0070	0	.0067	.0057	.0064	0
22.....	0	.0011	.0015	.0008	.0012	.0013	.0015	.0015	0	.0017	0	.0019	.0016	.0016	0
23.....	0	.0002	.0002	.0001	.0002	.0001	.0002	.0002	0	.0004	0	.0003	.0003	.0002	0
24.....	0	.0019	.0012	.0004	.0007	.0005	.0008	.0008	0	.0014	0	.0013	.0011	.0011	0
25.....	0	.0434	.0837	.0531	.0639	.0824	.1070	.1322	0	.0556	0	.0739	.0664	.0559	0
26.....	0	.0531	.0204	.0103	.0157	.0129	.0165	.0183	0	.0185	0	.0215	.0196	.0185	0
27.....	0	.0320	.0629	.0560	.0478	.0597	.0766	.0818	0	.0550	0	.0681	.0732	.0615	0
28.....	0	.0592	.0892	.0327	.0817	.0290	.0900	.1243	0	.0884	0	.0777	.0796	.0848	0
29.....	0	.0408	.0555	.0253	.0392	.0291	.0486	.0538	0	.0749	0	.0715	.0626	.0685	0
30.....	0	.0144	.0198	.0140	.0165	.0163	.0198	.0207	0	.0241	0	.0239	.0201	.0227	0
31.....	0	.0116	.0157	.0076	.0092	.0083	.0138	.0142	0	.0189	0	.0182	.0160	.0167	0
32.....	0	.0550	.0718	.0574	.0511	.0523	.0692	.0695	0	.0979	0	.0932	.0792	.0891	0
33.....	0	.0109	.0108	.0041	.0059	.0054	.0081	.0082	0	.0105	0	.0114	.0090	.0094	0
34.....	0	.0075	.0097	.0040	.0057	.0053	.0082	.0089	0	.0145	0	.0117	.0110	.0115	0
35.....	0	.0655	.0471	.0247	.0320	.0317	.0420	.0417	0	.0417	0	.0485	.0437	.0430	0
36.....	0	.0274	.0365	.0166	.0219	.0177	.0283	.0311	0	.0352	0	.0391	.0369	.0370	0
37.....	0	.0201	.0265	.0118	.0169	.0138	.0230	.0253	0	.0376	0	.0353	.0306	.0341	0
38.....	0	.0226	.0311	.0161	.0199	.0236	.0294	.0336	0	.0349	0	.0370	.0338	.0322	0
39.....	0	.3491	.4597	.2047	.2925	.2386	.3989	.4389	0	.6528	0	.6134	.5305	.5921	0
Total/1/	1.0000	1.7697	2.2475	1.9449	2.0194	2.3376	2.3073	2.3067	1.0000	1.9277	1.0000	2.1031	2.2261	1.9829	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	34.0100	34.0201	34.0202	34.0301	34.0302	34.0303	34.0304	34.0305	35.0100	35.0200	36.0100	36.0200	36.0300	36.0400	36.0500
1.....	0	0.0054	0	0.0043	0.0069	0	0	0.0056	0.0069	0.0069	0.0050	0.0057	0.0071	0	0
2.....	0	.0008	0	.0006	.0028	0	0	.0020	.0013	.0012	.0009	.0009	.0010	0	0
3.....	0	0	0	0	0	0	0	0	0	0	.0004	0	0	0	0
4.....	0	.0119	0	.0103	.0145	0	0	.0141	.0331	.0442	.0418	.0600	.0400	0	0
5.....	0	.0006	0	.0004	.0007	0	0	.0011	.0204	.0183	.0095	.0191	.0051	0	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	0	.0167	0	.0180	.0191	0	0	.0175	.0307	.0349	.0687	.0334	.0384	0	0
8.....	0	.0227	0	.0188	.0249	0	0	.0212	.0269	.0280	.0201	.0237	.0298	0	0
9.....	0	.0008	0	.0013	.0027	0	0	.0002	.0002	.0002	.0001	.0001	.0002	0	0
10.....	0	.0051	0	.0043	.0052	0	0	.0046	.0060	.0061	.0043	.0051	.0064	0	0
11.....	0	.0123	0	.0140	.0213	0	0	.0425	.0163	.0488	.0166	.0040	.0078	0	0
12.....	0	.0061	0	.0047	.0093	0	0	.0099	.0072	.0067	.0039	.0040	.0048	0	0
13.....	0	.0514	0	.0373	.0753	0	0	.0718	.0920	.1255	.0794	.0766	.1167	0	0
14.....	1.0000	1.0074	1.0000	1.0046	1.0103	1.0000	1.0000	1.0088	.0012	.0019	.0009	.0006	.0009	0	0
15.....	0	.0032	0	.0018	.0361	0	0	.0298	.0105	.0061	.0063	.0057	.0032	0	0
16.....	0	.0015	0	.0013	.0020	0	0	.0018	1.0634	1.0166	1.0269	1.0073	1.0157	1.0000	1.0000
17.....	0	.0006	0	.0004	.0010	0	0	.0013	.0017	.0017	.0016	.0043	.0016	0	0
18.....	0	.0017	0	.0014	.0033	0	0	.0049	.0033	.0036	.0081	.0041	.0034	0	0
19.....	0	.0028	0	.0028	.0028	0	0	.0046	.0060	.0098	.0038	.0055	.0047	0	0
20.....	0	.0016	0	.0013	.0023	0	0	.0018	.0023	.0022	.0020	.0018	.0022	0	0
21.....	0	.0056	0	.0045	.0059	0	0	.0050	.0067	.0070	.0049	.0059	.0074	0	0
22.....	0	.0013	0	.0010	.0014	0	0	.0013	.0017	.0019	.0015	.0015	.0018	0	0
23.....	0	.0002	0	.0001	.0002	0	0	.0002	.0004	.0003	.0002	.0002	.0003	0	0
24.....	0	.0011	0	.0007	.0023	0	0	.0010	.0011	.0011	.0011	.0009	.0011	0	0
25.....	0	.0414	0	.0215	.0552	0	0	.0496	.0628	.0789	.0939	.0844	.1086	0	0
26.....	0	.0178	0	.0126	.0327	0	0	.0223	.0219	.0195	.0155	.0159	.0210	0	0
27.....	0	.0336	0	.0306	.0393	0	0	.0350	.1060	.1402	.1696	.2144	.1242	0	0
28.....	0	.0597	0	.0464	.0831	0	0	.0655	.0803	.0738	.0648	.0475	.0558	0	0
29.....	0	.0600	0	.0483	.0632	0	0	.0553	.0724	.0758	.0569	.0644	.0811	0	0
30.....	0	.0268	0	.0162	.0276	0	0	.0181	.0239	.0237	.0220	.0212	.0250	0	0
31.....	0	.0143	0	.0126	.0216	0	0	.0122	.0167	.0177	.0157	.0242	.0294	0	0
32.....	0	.0731	0	.0617	.0807	0	0	.0674	.0923	.0974	.0719	.0776	.0953	0	0
33.....	0	.0089	0	.0166	.0164	0	0	.0137	.0111	.0110	.0076	.0087	.0107	0	0
34.....	0	.0107	0	.0101	.0108	0	0	.0095	.0117	.0124	.0096	.0124	.0147	0	0
35.....	0	.0388	0	.0315	.0606	0	0	.0416	.0439	.0421	.0484	.0425	.0475	0	0
36.....	0	.0328	0	.0260	.0418	0	0	.0302	.0391	.0386	.0285	.0351	.0438	0	0
37.....	0	.0302	0	.0242	.0314	0	0	.0269	.0358	.0375	.0263	.0315	.0398	0	0
38.....	0	.0282	0	.0243	.0298	0	0	.0259	.0390	.0374	.0322	.0337	.0436	0	0
39.....	0	.5236	0	.4198	.5452	0	0	.4667	.6215	.6519	.4567	.5462	.6906	0	0
Total/1/	1.0000	1.6367	1.0000	1.5164	1.8445	1.0000	1.0000	1.7244	1.9962	2.0791	1.9715	1.9841	2.0399	1.0000	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	36.0600	36.0701	36.0702	36.0800	36.0900	36.1000	36.1100	36.1200	36.1300	36.1400	36.1500	36.1600	36.1700	36.1800	36.1900
1.....	0.0069	0	0	0	0.0082	0.0065	0.0064	0.0060	0.0052	0.0067	0.0066	0.0054	0.0107	0.0088	0.0060
2.....	.0012	0	0	0	.0011	.0011	.0012	.0010	.0012	.0034	.0016	.0011	.0011	.0015	.0011
3.....	0	0	0	0	0	0	0	.0001	.0006	0	0	0	0	0	0
4.....	.0357	0	0	0	.0326	.0277	.0213	.0288	.0622	.0474	.0178	.0220	.0359	.0212	.0399
5.....	.0068	0	0	0	.0053	.0741	.0324	.0958	.0113	.0375	.0149	.0143	.0408	.0067	.0811
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0314	0	0	0	.0486	.0492	.0310	.0433	.0486	.0480	.0300	.0250	.0310	.0284	.0463
8.....	.0278	0	0	0	.0329	.0270	.0268	.0245	.0204	.0219	.0269	.0213	.0269	.0269	.0243
9.....	.0002	0	0	0	.0002	.0002	.0002	.0002	.0001	.0002	.0002	.0009	.0002	.0002	.0002
10.....	.0061	0	0	0	.0071	.0057	.0058	.0054	.0045	.0048	.0057	.0044	.0054	.0057	.0052
11.....	.0286	0	0	0	.0106	.0062	.0074	.0062	.0324	.1163	.0212	.0303	.0155	.0208	.0229
12.....	.0057	0	0	0	.0076	.0053	.0048	.0046	.0040	.0042	.0048	.0055	.0056	.0047	.0050
13.....	.1349	0	0	0	.0914	.0631	.0561	.0871	.1010	.1068	.0506	.1203	.2513	.1367	.1062
14.....	.0009	0	0	0	.0010	.0008	.0009	.0008	.0009	.0019	.0011	.0014	.0038	.0029	.0009
15.....	.0048	0	0	0	.0039	.0059	.0076	.0048	.0085	.0199	.0096	.0040	.0059	.0295	.0059
16.....	1.0451	1.0000	1.0000	1.0000	1.0216	1.1291	1.1151	1.1656	1.0110	1.0607	1.0209	1.0050	1.0223	1.0137	1.0605
17.....	.0019	0	0	0	.0030	.0017	.0091	.0014	.0016	.0027	.0011	.0380	.0032	.0100	.0029
18.....	.0036	0	0	0	.0040	.0047	.0139	.0044	.0064	.0058	.0027	.0028	.0047	.0049	.0039
19.....	.0060	0	0	0	.0087	.0037	.0038	.0037	.0107	.0047	.0039	.0036	.0063	.0110	.0041
20.....	.0024	0	0	0	.0026	.0023	.0023	.0022	.0019	.0024	.0021	.0016	.0021	.0023	.0022
21.....	.0069	0	0	0	.0081	.0067	.0066	.0064	.0050	.0054	.0066	.0051	.0061	.0066	.0058
22.....	.0018	0	0	0	.0019	.0018	.0019	.0018	.0015	.0020	.0016	.0013	.0021	.0018	.0018
23.....	.0004	0	0	0	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
24.....	.0011	0	0	0	.0014	.0011	.0015	.0010	.0008	.0009	.0010	.0009	.0011	.0011	.0010
25.....	.1209	0	0	0	.1250	.1537	.0814	.1499	.0997	.1575	.0665	.0759	.1507	.0688	.2046
26.....	.0194	0	0	0	.0269	.0229	.0190	.0194	.0149	.0161	.0253	.0182	.0221	.0203	.0211
27.....	.1004	0	0	0	.1303	.0794	.0540	.0608	.1991	.1450	.0542	.0579	.0775	.0541	.1189
28.....	.0911	0	0	0	.0823	.0629	.0654	.0728	.0792	.0665	.0700	.0688	.0942	.0944	.0588
29.....	.0752	0	0	0	.0879	.0734	.0736	.0725	.0557	.0589	.0709	.0551	.0671	.0712	.0638
30.....	.0240	0	0	0	.0266	.0301	.0273	.0209	.0321	.0206	.0235	.0191	.0251	.0225	.0271
31.....	.0176	0	0	0	.0210	.0186	.0175	.0179	.0150	.0151	.0170	.0146	.0193	.0170	.0173
32.....	.0891	0	0	0	.1185	.0919	.0868	.0813	.0685	.0709	.0893	.0770	.0856	.0895	.0818
33.....	.0105	0	0	0	.0122	.0103	.0100	.0099	.0078	.0089	.0098	.0082	.0099	.0100	.0093
34.....	.0132	0	0	0	.0160	.0130	.0120	.0114	.0095	.0099	.0121	.0088	.0114	.0117	.0110
35.....	.0464	0	0	0	.0544	.0537	.0571	.0528	.0360	.0409	.0488	.0423	.0487	.0425	.0661
36.....	.0394	0	0	0	.0469	.0412	.0418	.0366	.0301	.0317	.0419	.0347	.0391	.0397	.0415
37.....	.0371	0	0	0	.0432	.0353	.0351	.0322	.0266	.0284	.0350	.0272	.0327	.0354	.0308
38.....	.0387	0	0	0	.0449	.0469	.0373	.0400	.0326	.0321	.0330	.0303	.0355	.0334	.0380
39.....	.6447	0	0	0	.7508	.6125	.6087	.5582	.4617	.4930	.6070	.4722	.5682	.6143	.5353
Total/1/	2.0831	1.0000	1.0000	1.0000	2.1384	2.1574	1.9744	2.1737	2.0467	2.2063	1.8286	1.8524	2.2013	1.9561	2.2176

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	36.2000	36.2100	36.2200	37.0101	37.0102	37.0103	37.0104	37.0105	37.0200	37.0300	37.0401	37.0402	38.0100	38.0200	38.0300
1.....	0.0052	0.0050	0.0058	0.0050	0	0.0048	0.0035	0.0046	0.0064	0.0044	0.0065	0.0050	0	0.0021	0
2.....	.0012	.0008	.0010	.0007	0	.0007	.0006	.0006	.0010	.0006	.0008	.0007	0	.0003	0
3.....	0	0	0	.0004	0	0	0	0	0	0	0	0	0	0	0
4.....	.0330	.0253	.0317	.0270	0	.0142	.0147	.0272	.0197	.0200	.0344	.0271	0	.0153	0
5.....	.0189	.0117	.0131	.0040	0	.0020	.0016	.0047	.0078	.0004	.0018	.0049	0	.0011	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0248	.0513	.0307	.0414	0	.0228	.0308	.0219	.0459	.0316	.0298	.0438	0	.0151	0
8.....	.0196	.0205	.0235	.0201	0	.0179	.0133	.0175	.0257	.0184	.0245	.0167	0	.0082	0
9.....	.0005	.0002	.0003	.0001	0	.0001	.0001	.0001	.0002	.0001	.0001	.0001	0	.0001	0
10.....	.0041	.0046	.0050	.0044	0	.0037	.0028	.0037	.0058	.0040	.0050	.0036	0	.0018	0
11.....	.0432	.0112	.0385	.0032	0	.0045	.0030	.0038	.0037	.0038	.0044	.0062	0	.0017	0
12.....	.0041	.0035	.0047	.0038	0	.0039	.0032	.0036	.0045	.0033	.0046	.0031	0	.0041	0
13.....	.1340	.0631	.1085	.0723	0	.0762	.0688	.1824	.0546	.0387	.1268	.1219	0	.0272	0
14.....	.0056	.0007	.0015	.0007	0	.0008	.0006	.0008	.0012	.0013	.0009	.0008	0	.0003	0
15.....	.0058	.0070	.0049	.0028	0	.0043	.0042	.0023	.0054	.0019	.0019	.0102	0	.0011	0
16.....	1.0179	1.0203	1.0504	.0042	0	.0018	.0018	.0016	.0038	.0018	.0022	.0033	0	.0008	0
17.....	.0039	.0201	.0020	1.0245	1.0000	1.0418	1.0547	1.0470	1.0144	1.0464	1.0202	1.1145	1.0000	1.0853	1.0000
18.....	.0041	.0035	.0069	.0048	0	.0042	.0060	.0073	.0051	.0073	.0034	.0084	0	.0012	0
19.....	.0033	.0019	.0042	.0042	0	.0095	.0112	.0086	.0213	.0085	.0026	.0048	0	.0017	0
20.....	.0016	.0018	.0021	.0024	0	.0023	.0041	.0029	.0028	.0018	.0018	.0018	0	.0007	0
21.....	.0047	.0052	.0056	.0052	0	.0045	.0033	.0043	.0065	.0048	.0058	.0042	0	.0020	0
22.....	.0013	.0019	.0015	.0017	0	.0015	.0011	.0014	.0019	.0014	.0018	.0014	0	.0006	0
23.....	.0002	.0002	.0002	.0003	0	.0002	.0002	.0003	.0003	.0002	.0003	.0002	0	.0001	0
24.....	.0008	.0008	.0010	.0009	0	.0007	.0006	.0007	.0010	.0007	.0010	.0007	0	.0004	0
25.....	.0695	.1425	.0860	.0842	0	.0477	.0462	.0580	.0588	.0400	.0476	.0528	0	.0487	0
26.....	.0157	.0149	.0261	.0138	0	.0136	.0106	.0136	.0172	.0140	.0168	.0124	0	.0083	0
27.....	.1165	.0786	.0791	.0847	0	.0408	.0420	.0566	.0790	.0676	.1242	.0877	0	.0491	0
28.....	.0707	.0494	.0859	.0842	0	.0853	.0795	.0821	.0990	.0672	.0617	.0667	0	.0615	0
29.....	.0509	.0573	.0632	.0554	0	.0469	.0360	.0460	.0702	.0506	.0627	.0475	0	.0223	0
30.....	.0193	.0192	.0219	.0175	0	.0152	.0125	.0156	.0202	.0148	.0193	.0155	0	.0113	0
31.....	.0129	.0145	.0155	.0144	0	.0117	.0130	.0138	.0171	.0134	.0159	.0122	0	.0084	0
32.....	.0670	.0697	.0896	.0658	0	.0583	.0441	.0576	.0817	.0586	.0843	.0582	0	.0285	0
33.....	.0077	.0078	.0089	.0077	0	.0073	.0058	.0076	.0098	.0074	.0087	.0065	0	.0035	0
34.....	.0083	.0097	.0101	.0092	0	.0080	.0060	.0076	.0121	.0086	.0109	.0084	0	.0036	0
35.....	.0392	.0345	.0503	.0329	0	.0322	.0293	.0326	.0422	.0312	.0459	.0350	0	.0161	0
36.....	.0275	.0290	.0360	.0278	0	.0250	.0193	.0254	.0357	.0254	.0338	.0236	0	.0124	0
37.....	.0251	.0276	.0301	.0272	0	.0232	.0174	.0227	.0344	.0249	.0311	.0222	0	.0109	0
38.....	.0289	.0290	.0325	.0268	0	.0229	.0181	.0233	.0332	.0235	.0344	.0247	0	.0123	0
39.....	.4355	.4790	.5230	.4723	0	.4023	.3018	.3944	.5968	.4329	.5399	.3854	0	.1890	0
Total/1/	1.8972	1.8442	1.9782	1.7858	1.0000	1.6604	1.6098	1.8101	1.8500	1.6489	1.8779	1.8566	1.0000	1.4678	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	38.0400	38.0500	38.0600	38.0700	38.0800	38.0900	38.1000	38.1100	38.1200	38.1300	38.1400	39.0100	39.0200	40.0100	40.0200
1.....	0.0042	0.0034	0.0044	0.0037	0.0039	0.0037	0.0043	0.0058	0.0054	0.0051	0	0.0035	0.0045	0	0
2.....	.0005	.0004	.0006	.0006	.0006	.0006	.0007	.0008	.0008	.0007	0	.0006	.0006	0	0
3.....	.0001	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0445	.0169	.0173	.0144	.0235	.0153	.0189	.0228	.0172	.0190	0	.0109	.0144	0	0
5.....	.0029	.0023	.0004	.0092	.0012	.0018	.0023	.0022	.0029	.0012	0	.0004	.0007	0	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0283	.0197	.0241	.0178	.0225	.0202	.0184	.0363	.0246	.0258	0	.0184	.0185	0	0
8.....	.0155	.0138	.0164	.0142	.0152	.0141	.0157	.0247	.0229	.0216	0	.0146	.0186	0	0
9.....	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001	.0001	.0002	0	.0001	.0001	0	0
10.....	.0034	.0030	.0034	.0030	.0033	.0030	.0034	.0051	.0047	.0046	0	.0031	.0040	0	0
11.....	.0031	.0019	.0035	.0037	.0035	.0036	.0067	.0046	.0057	.0066	0	.0054	.0043	0	0
12.....	.0034	.0030	.0038	.0034	.0039	.0034	.0043	.0046	.0039	.0043	0	.0085	.0033	0	0
13.....	.1930	.0267	.0411	.0526	.0796	.0669	.1560	.0565	.0445	.0533	0	.0356	.0677	0	0
14.....	.0013	.0004	.0015	.0014	.0018	.0020	.0025	.0009	.0008	.0009	0	.0006	.0012	0	0
15.....	.0017	.0011	.0022	.0029	.0033	.0034	.0055	.0021	.0018	.0019	0	.0027	.0016	0	0
16.....	.0026	.0015	.0014	.0012	.0016	.0014	.0037	.0028	.0024	.0066	0	.0013	.0016	0	0
17.....	1.1287	1.0151	1.0363	1.0568	1.2766	1.1819	1.0970	1.1652	1.0380	1.0518	1.0000	.0354	.0403	0	0
18.....	.0038	.0016	.0020	.0027	.0039	.0042	.0041	.0032	.0035	.0058	0	1.0087	1.0100	1.0000	1.0000
19.....	.0056	.0022	.0067	.0040	.0044	.0176	.0045	.0086	.0170	.0173	0	.0036	.0038	0	0
20.....	.0014	.0011	.0014	.0029	.0022	.0035	.0042	.0019	.0017	.0018	0	.0012	.0015	0	0
21.....	.0039	.0035	.0040	.0036	.0040	.0035	.0039	.0061	.0055	.0056	0	.0039	.0047	0	0
22.....	.0013	.0009	.0018	.0012	.0014	.0012	.0012	.0016	.0015	.0018	0	.0010	.0012	0	0
23.....	.0002	.0001	.0001	.0002	.0002	.0002	.0002	.0003	.0003	.0003	0	.0001	.0001	0	0
24.....	.0007	.0006	.0007	.0006	.0007	.0008	.0007	.0010	.0009	.0009	0	.0006	.0008	0	0
25.....	.0772	.0421	.1398	.0678	.0634	.0408	.0478	.0557	.0708	.0515	0	.0416	.0450	0	0
26.....	.0142	.0111	.0148	.0115	.0124	.0122	.0133	.0179	.0157	.0180	0	.0100	.0135	0	0
27.....	.1915	.0985	.0481	.0460	.0839	.0471	.0461	.0860	.0570	.0631	0	.0335	.0419	0	0
28.....	.0493	.0625	.2214	.1039	.0854	.1015	.0743	.0669	.0648	.0686	0	.0595	.0801	0	0
29.....	.0420	.0377	.0439	.0379	.0415	.0375	.0413	.0647	.0584	.0576	0	.0387	.0500	0	0
30.....	.0210	.0117	.0148	.0124	.0149	.0133	.0143	.0211	.0169	.0195	0	.0135	.0152	0	0
31.....	.0120	.0117	.0155	.0114	.0121	.0114	.0116	.0161	.0175	.0180	0	.0108	.0132	0	0
32.....	.0550	.0455	.0547	.0464	.0512	.0467	.0517	.0775	.0732	.0726	0	.0485	.0620	0	0
33.....	.0073	.0054	.0068	.0062	.0067	.0066	.0068	.0091	.0091	.0100	0	.0072	.0074	0	0
34.....	.0067	.0064	.0071	.0063	.0068	.0064	.0069	.0135	.0096	.0100	0	.0064	.0084	0	0
35.....	.0320	.0259	.0324	.0281	.0280	.0300	.0315	.0560	.0387	.0394	0	.0259	.0289	0	0
36.....	.0216	.0195	.0263	.0215	.0221	.0212	.0231	.0408	.0407	.0321	0	.0231	.0265	0	0
37.....	.0206	.0187	.0212	.0186	.0202	.0184	.0204	.0319	.0288	.0284	0	.0190	.0249	0	0
38.....	.0239	.0181	.0258	.0222	.0236	.0202	.0220	.0323	.0300	.0301	0	.0199	.0253	0	0
39.....	.3571	.3246	.3674	.3232	.3507	.3192	.3543	.5537	.5000	.4934	0	.3305	.4330	0	0
Total/1/	2.0243	1.5341	1.8460	1.6405	1.9298	1.7659	1.7694	1.9469	1.7373	1.7562	1.0000	1.5177	1.6458	1.0000	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	40.0300	40.0400	40.0500	40.0600	40.0700	40.0800	40.0901	40.0902	41.0100	41.0201	41.0202	41.0203	42.0100	42.0201	42.0202
1.....	0.0048	0.0047	0.0044	0.0052	0.0046	0.0052	0.0043	0.0039	0.0053	0	0	0.0053	0.0053	0.0060	0.0054
2.....	.0007	.0006	.0007	.0008	.0009	.0009	.0015	.0005	.0007	0	0	.0009	.0009	.0010	.0008
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0122	.0126	.0131	.0138	.0121	.0135	.0099	.0113	.0143	0	0	.0133	.0137	.0137	.0124
5.....	.0003	.0004	.0009	.0005	.0004	.0004	.0004	.0004	.0004	0	0	.0006	.0003	.0004	.0003
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0188	.0220	.0176	.0337	.0378	.0182	.0235	.0182	.0232	0	0	.0294	.0199	.0334	.0258
8.....	.0202	.0200	.0185	.0222	.0186	.0217	.0160	.0161	.0226	0	0	.0212	.0219	.0222	.0218
9.....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	0	0	.0001	.0001	.0001	.0001
10.....	.0043	.0043	.0039	.0047	.0040	.0047	.0034	.0034	.0049	0	0	.0046	.0047	.0048	.0047
11.....	.0077	.0030	.0099	.0032	.0060	.0151	.0029	.0036	.0050	0	0	.0128	.0196	.0082	.0109
12.....	.0059	.0042	.0042	.0041	.0032	.0053	.0045	.0040	.0050	0	0	.0041	.0440	.0039	.0166
13.....	.0332	.0359	.0377	.0381	.0366	.0392	.0289	.0314	.0353	0	0	.0463	.0370	.0356	.0325
14.....	.0006	.0016	.0033	.0016	.0015	.0049	.0005	.0005	.0008	0	0	.0036	.0050	.0046	.0052
15.....	.0030	.0018	.0029	.0029	.0064	.0051	.0199	.0023	.0018	0	0	.0058	.0045	.0144	.0057
16.....	.0018	.0018	.0290	.0031	.0026	.0020	.0021	.0023	.0018	0	0	.0036	.0017	.0021	.0019
17.....	.0240	.0338	.0545	.0333	.0365	.0289	.0418	.0540	.0326	0	0	.0264	.0157	.0235	.0206
18.....	1.0117	1.0379	1.0074	1.0487	1.0219	1.0138	1.0099	1.0080	1.0046	1.0000	1.0000	1.0085	1.0046	1.0046	1.0030
19.....	.0076	.0112	.0043	.0071	.0045	.0047	.0024	.0058	.0413	0	0	.0096	.0059	.0061	.0066
20.....	.0055	.0021	.0015	.0021	.0019	.0017	.0015	.0014	.0021	0	0	.0027	.0019	.0019	.0017
21.....	.0054	.0051	.0050	.0057	.0055	.0055	.0042	.0042	.0058	0	0	.0056	.0054	.0058	.0056
22.....	.0017	.0017	.0012	.0017	.0013	.0014	.0011	.0010	.0016	0	0	.0015	.0014	.0014	.0013
23.....	.0036	.0002	.0002	.0003	.0002	.0002	.0001	.0001	.0002	0	0	.0002	.0002	.0002	.0002
24.....	.0015	.0009	.0008	.0010	.0008	.0009	.0007	.0007	.0010	0	0	.0009	.0026	.0010	.0012
25.....	.0345	.0412	.0431	.0450	.0406	.0393	.0421	.0450	.0433	0	0	.0384	.0405	.0344	.0325
26.....	.0192	.0164	.0148	.0198	.0161	.0169	.0141	.0143	.0180	0	0	.0252	.0508	.0154	.0258
27.....	.0345	.0345	.0393	.0392	.0335	.0384	.0287	.0374	.0453	0	0	.0417	.0395	.0431	.0448
28.....	.1056	.0725	.0599	.0760	.0735	.0658	.0767	.0785	.0657	0	0	.0675	.0687	.0824	.0695
29.....	.0534	.0537	.0488	.0593	.0508	.0576	.0426	.0426	.0611	0	0	.0576	.0580	.0599	.0585
30.....	.0184	.0175	.0161	.0188	.0162	.0181	.0155	.0152	.0207	0	0	.0163	.0188	.0184	.0179
31.....	.0141	.0152	.0133	.0151	.0133	.0155	.0112	.0125	.0152	0	0	.0143	.0148	.0150	.0143
32.....	.0679	.0655	.0622	.0704	.0617	.0714	.0511	.0537	.0769	0	0	.0697	.0720	.0735	.0706
33.....	.0076	.0113	.0105	.0120	.0105	.0118	.0105	.0100	.0087	0	0	.0087	.0104	.0100	.0086
34.....	.0087	.0089	.0080	.0105	.0097	.0093	.0074	.0071	.0102	0	0	.0104	.0098	.0098	.0099
35.....	.0357	.0341	.0324	.0431	.0372	.0339	.0332	.0293	.0457	0	0	.0393	.0548	.0348	.0400
36.....	.0308	.0302	.0288	.0349	.0275	.0322	.0246	.0249	.0328	0	0	.0301	.0329	.0321	.0317
37.....	.0266	.0265	.0242	.0291	.0248	.0287	.0210	.0211	.0304	0	0	.0284	.0288	.0297	.0293
38.....	.0256	.0266	.0249	.0289	.0246	.0285	.0239	.0215	.0308	0	0	.0322	.0298	.0274	.0288
39.....	.4609	.4598	.4194	.5052	.4297	.4981	.3647	.3658	.5269	0	0	.4938	.5002	.5154	.5079
Total/1/	1.6572	1.6600	1.6473	1.7359	1.6476	1.6610	1.5821	1.5863	1.7150	1.0000	1.0000	1.6867	1.7461	1.6809	1.6666

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	42.0300	42.0401	42.0402	42.0500	42.0700	42.0800	42.1000	42.1100	43.0100	43.0200	44.0001	44.0002	45.0100	45.0200	45.0300
1.....	0.0054	0.0085	0.0060	0.0052	0	0.0047	0	0.0050	0.0050	0.0042	0.0046	0.0039	0.0048	0	0.0048
2.....	.0008	.0010	.0008	.0011	0	.0006	0	.0008	.0006	.0006	.0008	.0008	.0006	0	.0007
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0140	.0285	.0253	.0134	0	.0131	0	.0137	.0125	.0113	.0108	.0090	.0113	0	.0117
5.....	.0007	.0035	.0034	.0004	0	.0009	0	.0012	.0004	.0004	.0003	.0003	.0004	0	.0004
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0245	.0296	.0247	.0208	0	.0181	0	.0181	.0226	.0186	.0159	.0155	.0180	0	.0204
8.....	.0223	.0294	.0219	.0210	0	.0197	0	.0201	.0215	.0178	.0189	.0157	.0202	0	.0204
9.....	.0001	.0002	.0001	.0006	0	.0001	0	.0001	.0001	.0001	.0001	.0001	.0001	0	.0001
10.....	.0048	.0058	.0045	.0045	0	.0046	0	.0043	.0046	.0040	.0041	.0033	.0043	0	.0043
11.....	.0077	.0063	.0051	.0096	0	.0056	0	.0053	.0028	.0068	.0031	.0080	.0029	0	.0029
12.....	.0038	.0048	.0039	.0035	0	.0037	0	.0039	.0034	.0039	.0033	.0055	.0040	0	.0055
13.....	.0576	.1826	.1736	.0388	0	.0409	0	.0480	.0332	.0305	.0279	.0253	.0291	0	.0309
14.....	.0036	.0021	.0061	.0089	0	.0015	0	.0060	.0013	.0013	.0012	.0038	.0010	0	.0014
15.....	.0040	.0023	.0019	.0074	0	.0019	0	.0062	.0016	.0017	.0048	.0046	.0021	0	.0022
16.....	.0035	.0044	.0022	.0016	0	.0021	0	.0030	.0017	.0028	.0024	.0015	.0036	0	.0019
17.....	.0319	.0103	.0234	.0297	0	.0355	0	.0385	.0242	.0300	.0206	.0122	.0250	0	.0207
18.....	1.0083	1.0051	1.0070	1.0053	1.0000	1.0246	1.0000	1.0132	.0391	.0169	.0046	.0055	.0263	0	.0156
19.....	.0062	.0092	.0056	.0067	0	.0115	0	.0108	1.0312	1.0259	1.0345	1.0165	1.0299	1.0000	1.0471
20.....	.0024	.0021	.0017	.0018	0	.0026	0	.0019	.0091	.0035	.0020	.0098	.0037	0	.0057
21.....	.0057	.0067	.0052	.0053	0	.0055	0	.0052	.0064	.0059	.0062	.0042	.0070	0	.0057
22.....	.0015	.0017	.0015	.0014	0	.0015	0	.0017	.0099	.0035	.0029	.0042	.0039	0	.0023
23.....	.0002	.0003	.0002	.0002	0	.0002	0	.0002	.0002	.0002	.0002	.0002	.0002	0	.0002
24.....	.0011	.0011	.0009	.0009	0	.0008	0	.0010	.0009	.0008	.0008	.0008	.0009	0	.0009
25.....	.0380	.0580	.0576	.0400	0	.0388	0	.0441	.0331	.0347	.0358	.0327	.0374	0	.0325
26.....	.0243	.0190	.0160	.0150	0	.0158	0	.0157	.0151	.0141	.0135	.0146	.0149	0	.0266
27.....	.0430	.0904	.0658	.0386	0	.0385	0	.0401	.0347	.0325	.0328	.0274	.0347	0	.0371
28.....	.0674	.0793	.0841	.0697	0	.0761	0	.0677	.0632	.0721	.0997	.0915	.0970	0	.0823
29.....	.0601	.0723	.0558	.0560	0	.0521	0	.0538	.0576	.0481	.0507	.0479	.0541	0	.0541
30.....	.0190	.0226	.0186	.0213	0	.0223	0	.0211	.0165	.0157	.0154	.0132	.0171	0	.0171
31.....	.0150	.0184	.0143	.0158	0	.0137	0	.0143	.0137	.0115	.0121	.0104	.0130	0	.0127
32.....	.0731	.0926	.0707	.0681	0	.0624	0	.0666	.0680	.0573	.0616	.0520	.0641	0	.0651
33.....	.0089	.0103	.0083	.0081	0	.0084	0	.0124	.0080	.0073	.0074	.0063	.0079	0	.0079
34.....	.0099	.0121	.0093	.0092	0	.0087	0	.0087	.0094	.0079	.0079	.0067	.0086	0	.0091
35.....	.0409	.0474	.0364	.0351	0	.0455	0	.0326	.0355	.0303	.0275	.0294	.0323	0	.0409
36.....	.0320	.0403	.0310	.0314	0	.0307	0	.0293	.0310	.0253	.0274	.0240	.0293	0	.0311
37.....	.0297	.0358	.0276	.0278	0	.0258	0	.0267	.0288	.0239	.0254	.0205	.0270	0	.0269
38.....	.0270	.0394	.0287	.0274	0	.0288	0	.0266	.0280	.0245	.0249	.0193	.0251	0	.0249
39.....	.5154	.6216	.4790	.4828	0	.4477	0	.4638	.5002	.4155	.4405	.3562	.4689	0	.4674
Total/1/	1.6979	1.9835	1.8493	1.6516	1.0000	1.6675	1.0000	1.6679	1.6750	1.5956	1.6120	1.5466	1.6617	1.0000	1.6742

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	46.0100	46.0200	46.0300	46.0400	47.0100	47.0200	47.0300	47.0401	47.0402	47.0403	48.0100	48.0200	48.0300	48.0400	48.0500
1.....	0.0047	0.0050	0.0048	0.0051	0	0.0058	0.0064	0.0045	0	0.0052	0.0058	0	0.0049	0.0062	0.0057
2.....	.0007	.0007	.0006	.0008	0	.0009	.0008	.0008	0	.0007	.0009	0	.0011	.0009	.0008
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0194	.0117	.0113	.0122	0	.0152	.0157	.0120	0	.0150	.0133	0	.0117	.0145	.0137
5.....	.0004	.0003	.0004	.0004	0	.0005	.0006	.0003	0	.0003	.0003	0	.0004	.0004	.0003
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0181	.0181	.0161	.0215	0	.0206	.0199	.0131	0	.0160	.0193	0	.0209	.0218	.0202
8.....	.0205	.0213	.0207	.0210	0	.0247	.0276	.0189	0	.0224	.0242	0	.0202	.0261	.0240
9.....	.0001	.0001	.0001	.0001	0	.0001	.0001	.0001	0	.0001	.0001	0	.0001	.0002	.0001
10.....	.0043	.0046	.0044	.0045	0	.0053	.0060	.0039	0	.0048	.0052	0	.0043	.0056	.0051
11.....	.0032	.0033	.0029	.0034	0	.0033	.0061	.0070	0	.0034	.0045	0	.0032	.0037	.0035
12.....	.0036	.0048	.0034	.0037	0	.0044	.0043	.0044	0	.0037	.0041	0	.0035	.0044	.0041
13.....	.0515	.0306	.0312	.0333	0	.0424	.0472	.0335	0	.0400	.0357	0	.0315	.0368	.0353
14.....	.0009	.0018	.0033	.0014	0	.0009	.0014	.0032	0	.0024	.0020	0	.0036	.0017	.0022
15.....	.0021	.0028	.0014	.0049	0	.0034	.0022	.0034	0	.0015	.0048	0	.0079	.0042	.0034
16.....	.0018	.0017	.0040	.0030	0	.0020	.0022	.0014	0	.0018	.0019	0	.0020	.0021	.0021
17.....	.0250	.0187	.0202	.0285	0	.0239	.0145	.0273	0	.0293	.0170	0	.0247	.0200	.0157
18.....	.0068	.0300	.0196	.0171	0	.0091	.0042	.0165	0	.0160	.0217	0	.0133	.0057	.0114
19.....	1.0218	1.0221	1.0150	1.0337	1.0000	1.0289	1.0338	1.0172	1.0000	1.0179	1.0339	1.0000	1.0272	1.0516	1.0521
20.....	.0075	.0071	.0065	.0177	0	.0175	.0031	.0190	0	.0145	.0101	0	.0093	.0103	.0303
21.....	.0053	.0056	.0059	.0058	0	.0069	.0073	.0049	0	.0058	.0063	0	.0058	.0069	.0063
22.....	.0021	.0029	.0023	.0036	0	.0025	.0024	.0023	0	.0020	.0027	0	.0031	.0032	.0022
23.....	.0002	.0002	.0002	.0002	0	.0002	.0002	.0002	0	.0002	.0002	0	.0002	.0002	.0003
24.....	.0008	.0009	.0008	.0013	0	.0010	.0011	.0008	0	.0009	.0010	0	.0008	.0010	.0010
25.....	.0373	.0342	.0310	.0381	0	.0360	.0390	.0299	0	.0349	.0367	0	.0347	.0411	.0365
26.....	.0153	.0182	.0156	.0159	0	.0185	.0183	.0147	0	.0166	.0192	0	.0149	.0208	.0213
27.....	.0368	.0341	.0335	.0346	0	.0407	.0458	.0318	0	.0374	.0379	0	.0337	.0412	.0381
28.....	.0608	.0839	.0713	.1080	0	.0725	.0579	.0742	0	.0726	.0949	0	.0787	.1012	.0901
29.....	.0567	.0567	.0544	.0573	0	.0664	.0739	.0492	0	.0611	.0643	0	.0525	.0690	.0637
30.....	.0168	.0180	.0167	.0177	0	.0206	.0220	.0184	0	.0190	.0230	0	.0200	.0243	.0232
31.....	.0145	.0134	.0129	.0135	0	.0161	.0175	.0122	0	.0151	.0153	0	.0130	.0163	.0155
32.....	.0665	.0714	.0661	.0675	0	.0784	.0899	.0584	0	.0739	.0780	0	.0640	.0829	.0789
33.....	.0078	.0085	.0078	.0083	0	.0097	.0106	.0080	0	.0089	.0101	0	.0084	.0107	.0101
34.....	.0092	.0098	.0088	.0090	0	.0106	.0117	.0078	0	.0094	.0102	0	.0089	.0111	.0102
35.....	.0461	.0373	.0356	.0361	0	.0381	.0414	.0328	0	.0331	.0405	0	.0431	.0460	.0434
36.....	.0340	.0313	.0310	.0314	0	.0358	.0393	.0305	0	.0320	.0357	0	.0317	.0383	.0357
37.....	.0261	.0283	.0273	.0279	0	.0329	.0372	.0244	0	.0300	.0323	0	.0262	.0347	.0319
38.....	.0352	.0278	.0245	.0259	0	.0316	.0342	.0261	0	.0321	.0297	0	.0249	.0314	.0299
39.....	.4522	.4921	.4742	.4848	0	.5719	.6453	.4232	0	.5209	.5606	0	.4555	.6018	.5536
Total/1/	1.6639	1.6673	1.6118	1.7145	1.0000	1.7273	1.7457	1.6132	1.0000	1.6801	1.7430	1.0000	1.6544	1.7963	1.7683

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	48.0600	49.0100	49.0200	49.0300	49.0400	49.0500	49.0600	49.0700	50.0001	50.0002	51.0101	51.0102	51.0300	51.0400	52.0100
1.....	0.0059	0.0052	0.0057	0.0052	0.0093	0.0055	0.0054	0.0058	0	0.0069	0.0048	0	0	0	0
2.....	.0009	.0009	.0007	.0009	.0043	.0007	.0009	.0010	0	.0009	.0006	0	0	0	0
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0178	.0136	.0179	.0139	.0228	.0137	.0133	.0150	0	.0164	.0112	0	0	0	0
5.....	.0015	.0004	.0003	.0004	.0014	.0004	.0003	.0004	0	.0004	.0002	0	0	0	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0205	.0170	.0215	.0186	.0255	.0229	.0200	.0197	0	.0214	.0153	0	0	0	0
8.....	.0248	.0219	.0243	.0215	.0332	.0235	.0229	.0246	0	.0299	.0207	0	0	0	0
9.....	.0001	.0001	.0001	.0008	.0002	.0001	.0001	.0005	0	.0003	.0001	0	0	0	0
10.....	.0053	.0047	.0052	.0046	.0072	.0051	.0049	.0051	0	.0064	.0043	0	0	0	0
11.....	.0042	.0051	.0059	.0068	.0047	.0047	.0060	.0134	0	.0070	.0049	0	0	0	0
12.....	.0041	.0050	.0046	.0047	.0055	.0047	.0040	.0051	0	.0054	.0038	0	0	0	0
13.....	.0758	.0350	.0444	.0401	.0847	.0339	.0356	.0458	0	.0400	.0306	0	0	0	0
14.....	.0015	.0027	.0006	.0009	.0009	.0012	.0014	.0031	0	.0009	.0032	0	0	0	0
15.....	.0035	.0040	.0020	.0053	.0508	.0021	.0043	.0036	0	.0024	.0014	0	0	0	0
16.....	.0036	.0025	.0020	.0020	.0023	.0040	.0025	.0026	0	.0042	.0017	0	0	0	0
17.....	.0278	.0308	.0223	.0243	.0135	.0257	.0165	.0174	0	.0162	.0042	0	0	0	0
18.....	.0323	.0242	.0027	.0211	.0031	.0032	.0267	.0230	0	.0057	.0069	0	0	0	0
19.....	1.0282	1.0349	1.0175	1.0153	1.0206	1.0177	1.0176	1.0297	1.0000	1.0732	1.0045	1.0000	1.0000	1.0000	1.0000
20.....	.0119	.0088	.0018	.0055	.0023	.0023	.0323	.0174	0	.0058	.0134	0	0	0	0
21.....	.0065	.0061	.0064	.0055	.0087	.0068	.0058	.0062	0	.0078	.0050	0	0	0	0
22.....	.0024	.0025	.0018	.0023	.0022	.0029	.0020	.0026	0	.0041	.0015	0	0	0	0
23.....	.0003	.0003	.0002	.0006	.0002	.0002	.0007	.0006	0	.0003	.0003	0	0	0	0
24.....	.0010	.0009	.0010	.0009	.0013	.0010	.0009	.0010	0	.0012	.0009	0	0	0	0
25.....	.0447	.0356	.0409	.0370	.0468	.0357	.0391	.0415	0	.0466	.0334	0	0	0	0
26.....	.0215	.0186	.0167	.0186	.0206	.0247	.0187	.0253	0	.0232	.0181	0	0	0	0
27.....	.0436	.0356	.0512	.0362	.0536	.0438	.0356	.0386	0	.0485	.0310	0	0	0	0
28.....	.0779	.0791	.0883	.0796	.0650	.0652	.0765	.0809	0	.0649	.0766	0	0	0	0
29.....	.0658	.0568	.0657	.0569	.0903	.0630	.0610	.0646	0	.0794	.0537	0	0	0	0
30.....	.0235	.0194	.0204	.0194	.0261	.0198	.0201	.0216	0	.0267	.0223	0	0	0	0
31.....	.0159	.0133	.0154	.0136	.0199	.0148	.0142	.0152	0	.0185	.0137	0	0	0	0
32.....	.0798	.0674	.0765	.0735	.1106	.0749	.0746	.0815	0	.1000	.0692	0	0	0	0
33.....	.0103	.0092	.0100	.0090	.0131	.0097	.0095	.0102	0	.0121	.0196	0	0	0	0
34.....	.0105	.0092	.0103	.0090	.0140	.0103	.0096	.0100	0	.0140	.0083	0	0	0	0
35.....	.0438	.0398	.0415	.0373	.0523	.0407	.0393	.0453	0	.0785	.0367	0	0	0	0
36.....	.0368	.0385	.0357	.0338	.0475	.0339	.0336	.0404	0	.0446	.0336	0	0	0	0
37.....	.0329	.0277	.0324	.0280	.0446	.0315	.0303	.0318	0	.0399	.0268	0	0	0	0
38.....	.0307	.0285	.0301	.0275	.0398	.0287	.0291	.0331	0	.0371	.0259	0	0	0	0
39.....	.5717	.4804	.5619	.4869	.7747	.5478	.5270	.5524	0	.6923	.4657	0	0	0	0
Total/1/	1.8176	1.7052	1.7242	1.6805	1.9491	1.6789	1.7152	1.7836	1.0000	1.8909	1.6086	1.0000	1.0000	1.0000	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	52.0200	52.0300	52.0400	52.0500	53.0100	53.0200	53.0300	53.0400	53.0500	53.0600	53.0700	53.0800	54.0100	54.0200	54.0300
1.....	0.0054	0.0046	0	0.0053	0.0059	0.0059	0.0059	0.0057	0.0062	0.0062	0	0	0.0047	0	0
2.....	.0008	.0008	0	.0007	.0008	.0012	.0008	.0008	.0008	.0009	0	0	.0007	0	0
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0232	.0124	0	.0149	.0125	.0180	.0134	.0136	.0141	.0149	0	0	.0128	0	0
5.....	.0004	.0006	0	.0054	.0003	.0005	.0004	.0004	.0004	.0012	0	0	.0007	0	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0179	.0164	0	.0181	.0200	.0257	.0229	.0222	.0185	.0199	0	0	.0184	0	0
8.....	.0229	.0186	0	.0221	.0252	.0239	.0249	.0241	.0263	.0236	0	0	.0191	0	0
9.....	.0002	.0001	0	.0001	.0001	.0002	.0001	.0002	.0002	.0001	0	0	.0001	0	0
10.....	.0048	.0039	0	.0047	.0054	.0050	.0053	.0052	.0056	.0049	0	0	.0040	0	0
11.....	.0093	.0070	0	.0086	.0051	.0177	.0056	.0065	.0072	.0071	0	0	.0154	0	0
12.....	.0043	.0038	0	.0069	.0045	.0046	.0042	.0041	.0045	.0052	0	0	.0132	0	0
13.....	.0630	.0431	0	.0627	.0371	.0603	.0462	.0407	.0473	.0735	0	0	.0479	0	0
14.....	.0046	.0025	0	.0060	.0016	.0016	.0053	.0017	.0046	.0009	0	0	.0068	0	0
15.....	.0025	.0056	0	.0020	.0017	.0075	.0033	.0028	.0019	.0042	0	0	.0023	0	0
16.....	.0020	.0027	0	.0022	.0032	.0027	.0021	.0024	.0020	.0021	0	0	.0099	0	0
17.....	.0216	.0272	0	.0192	.0182	.0400	.0163	.0320	.0137	.0289	0	0	.0251	0	0
18.....	.0262	.0150	0	.0453	.0068	.0075	.0060	.0048	.0071	.0037	0	0	.0117	0	0
19.....	1.0295	1.0155	1.0000	1.0230	.0070	.0044	.0054	.0057	.0055	.0110	0	0	.0032	0	0
20.....	.0137	.0102	0	.0078	1.0237	1.0097	1.0452	1.0088	1.0491	1.0299	1.0000	1.0000	1.0244	1.0000	1.0000
21.....	.0059	.0049	0	.0057	.0063	.0059	.0062	.0062	.0065	.0066	0	0	.0046	0	0
22.....	.0023	.0018	0	.0021	.0016	.0015	.0016	.0021	.0017	.0017	0	0	.0014	0	0
23.....	.0021	.0017	0	.0011	.0005	.0008	.0003	.0002	.0003	.0002	0	0	.0058	0	0
24.....	.0009	.0012	0	.0021	.0010	.0010	.0015	.0010	.0011	.0009	0	0	.0013	0	0
25.....	.0601	.0345	0	.0479	.0336	.0455	.0393	.0408	.0391	.0481	0	0	.0395	0	0
26.....	.0189	.0154	0	.0214	.0220	.0172	.0177	.0182	.0191	.0181	0	0	.0238	0	0
27.....	.0385	.0352	0	.0362	.0390	.0436	.0389	.0417	.0407	.0399	0	0	.0468	0	0
28.....	.0820	.0918	0	.0979	.0766	.1063	.0883	.0868	.1035	.1021	0	0	.0920	0	0
29.....	.0632	.0502	0	.0586	.0667	.0627	.0656	.0640	.0692	.0606	0	0	.0491	0	0
30.....	.0208	.0151	0	.0177	.0199	.0268	.0271	.0257	.0277	.0260	0	0	.0188	0	0
31.....	.0217	.0121	0	.0142	.0154	.0153	.0156	.0154	.0164	.0153	0	0	.0122	0	0
32.....	.0794	.0590	0	.0740	.0821	.0783	.0821	.0792	.0865	.0769	0	0	.0603	0	0
33.....	.0095	.0083	0	.0132	.0090	.0125	.0131	.0125	.0135	.0125	0	0	.0116	0	0
34.....	.0097	.0080	0	.0093	.0103	.0103	.0104	.0103	.0107	.0097	0	0	.0092	0	0
35.....	.0428	.0355	0	.0422	.0391	.0418	.0401	.0399	.0415	.0360	0	0	.0446	0	0
36.....	.0349	.0284	0	.0340	.0372	.0368	.0376	.0365	.0395	.0337	0	0	.0302	0	0
37.....	.0300	.0244	0	.0290	.0336	.0312	.0329	.0320	.0348	.0302	0	0	.0245	0	0
38.....	.0378	.0238	0	.0279	.0300	.0297	.0301	.0300	.0321	.0306	0	0	.0251	0	0
39.....	.5202	.4237	0	.5028	.5833	.5423	.5707	.5555	.6041	.5244	0	0	.4252	0	0
Total/1/	1.8125	1.6416	1.0000	1.7895	1.7030	1.8038	1.7620	1.7241	1.7988	1.7872	1.0000	1.0000	1.7215	1.0000	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	54.0400	54.0500	54.0600	54.0700	55.0100	55.0200	55.0300	56.0100	56.0200	56.0300	56.0400	57.0100	57.0200	57.0300	58.0100
1.....	0.0050	0	0	0	0.0047	0.0054	0	0	0.0063	0.0059	0.0069	0.0067	0.0066	0.0060	0.0052
2.....	.0008	0	0	0	.0007	.0010	0	0	.0009	.0009	.0009	.0009	.0009	.0009	.0007
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0136	0	0	0	.0146	.0150	0	0	.0207	.0135	.0139	.0187	.0181	.0148	.0267
5.....	.0010	0	0	0	.0016	.0011	0	0	.0014	.0005	.0004	.0020	.0018	.0007	.0041
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0199	0	0	0	.0180	.0172	0	0	.0228	.0193	.0208	.0239	.0221	.0226	.0238
8.....	.0187	0	0	0	.0193	.0216	0	0	.0253	.0251	.0297	.0284	.0278	.0252	.0205
9.....	.0004	0	0	0	.0002	.0003	0	0	.0002	.0002	.0002	.0002	.0002	.0002	.0001
10.....	.0040	0	0	0	.0041	.0046	0	0	.0053	.0054	.0065	.0061	.0060	.0055	.0043
11.....	.0166	0	0	0	.0188	.0159	0	0	.0116	.0070	.0049	.0112	.0050	.0106	.0102
12.....	.0127	0	0	0	.0056	.0057	0	0	.0453	.0047	.0050	.0049	.0054	.0050	.0054
13.....	.0927	0	0	0	.0505	.0697	0	0	.1537	.0529	.0401	.0611	.0761	.0604	.1757
14.....	.0094	0	0	0	.0007	.0103	0	0	.0086	.0196	.0017	.0029	.0019	.0129	.0096
15.....	.0075	0	0	0	.0026	.0065	0	0	.0025	.0030	.0025	.0027	.0019	.0023	.0021
16.....	.0060	0	0	0	.0441	.0173	0	0	.0020	.0022	.0024	.0643	.0066	.0033	.0026
17.....	.0184	0	0	0	.0106	.0155	0	0	.0012	.0226	.0049	.0094	.0229	.0191	.0770
18.....	.0054	0	0	0	.0021	.0062	0	0	.0027	.0043	.0083	.0053	.0052	.0068	.0032
19.....	.0082	0	0	0	.0041	.0049	0	0	.0029	.0046	.0055	.0060	.0045	.0048	.0037
20.....	1.0159	1.0000	1.0000	1.0000	1.0030	1.0501	1.0000	1.0000	1.0036	1.0963	1.0084	1.0053	1.0064	1.0069	1.0082
21.....	.0046	0	0	0	.0047	.0053	0	0	.0061	.0061	.0074	.0070	.0066	.0061	.0050
22.....	.0014	0	0	0	.0012	.0015	0	0	.0015	.0017	.0019	.0018	.0018	.0018	.0014
23.....	.0016	0	0	0	.0003	.0003	0	0	.0002	.0003	.0005	.0003	.0003	.0003	.0002
24.....	.0018	0	0	0	.0009	.0010	0	0	.0012	.0011	.0012	.0012	.0012	.0011	.0009
25.....	.0380	0	0	0	.0391	.0427	0	0	.0550	.0399	.0401	.0481	.0464	.0425	.0582
26.....	.0209	0	0	0	.0148	.0187	0	0	.0219	.0209	.0226	.0211	.0227	.0195	.0162
27.....	.0366	0	0	0	.0420	.0412	0	0	.0487	.0382	.0418	.0571	.0521	.0432	.0577
28.....	.0697	0	0	0	.0988	.0977	0	0	.1341	.0755	.0758	.0787	.0901	.0934	.0893
29.....	.0487	0	0	0	.0503	.0560	0	0	.0657	.0656	.0785	.0743	.0712	.0650	.0541
30.....	.0169	0	0	0	.0230	.0248	0	0	.0200	.0204	.0228	.0393	.0248	.0227	.0241
31.....	.0118	0	0	0	.0127	.0138	0	0	.0160	.0156	.0180	.0179	.0174	.0157	.0142
32.....	.0618	0	0	0	.0606	.0711	0	0	.1380	.1090	.1119	.0936	.0875	.0799	.0687
33.....	.0085	0	0	0	.0110	.0131	0	0	.0107	.0122	.0128	.0140	.0165	.0147	.0119
34.....	.0086	0	0	0	.0088	.0091	0	0	.0107	.0109	.0125	.0121	.0119	.0110	.0089
35.....	.0373	0	0	0	.0381	.0405	0	0	.0502	.0477	.0470	.0506	.0481	.0463	.0365
36.....	.0283	0	0	0	.0310	.0343	0	0	.0404	.0381	.0443	.0442	.0461	.0405	.0303
37.....	.0243	0	0	0	.0251	.0280	0	0	.0327	.0329	.0395	.0373	.0355	.0324	.0266
38.....	.0248	0	0	0	.0249	.0276	0	0	.0336	.0312	.0350	.0359	.0379	.0322	.0294
39.....	.4212	0	0	0	.4349	.4859	0	0	.5685	.5711	.6865	.6474	.6171	.5632	.4622
Total/1/	1.7017	1.0000	1.0000	1.0000	1.6925	1.7951	1.0000	1.0000	2.0037	1.8554	1.7765	1.8946	1.8378	1.7765	1.9168

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	58.0200	58.0300	58.0400	58.0500	59.0100	59.0200	59.0301	59.0302	60.0100	60.0200	60.0400	61.0100	61.0200	61.0300	61.0500
1.....	0.0054	0.0057	0.0056	0	0.0047	0.0047	0.0023	0.0046	0.0060	0.0067	0.0069	0.0073	0.0070	0.0045	0.0040
2.....	.0007	.0008	.0007	0	.0014	.0026	.0003	.0006	.0008	.0010	.0010	.0012	.0022	.0009	.0006
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0202	.0129	.0133	0	.0110	.0092	.0059	.0118	.0134	.0174	.0154	.0169	.0157	.0124	.0099
5.....	.0025	.0004	.0005	0	.0004	.0003	.0003	.0007	.0003	.0004	.0004	.0005	.0009	.0006	.0003
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0192	.0163	.0185	0	.0168	.0147	.0072	.0184	.0188	.0237	.0210	.0229	.0193	.0140	.0182
8.....	.0220	.0247	.0238	0	.0183	.0151	.0095	.0192	.0265	.0296	.0303	.0302	.0265	.0186	.0165
9.....	.0001	.0001	.0002	0	.0002	.0002	.0001	.0001	.0002	.0002	.0002	.0002	.0015	.0001	.0001
10.....	.0047	.0052	.0051	0	.0052	.0033	.0040	.0042	.0061	.0059	.0064	.0071	.0073	.0041	.0035
11.....	.0059	.0060	.0060	0	.0040	.0029	.0027	.0046	.0032	.0035	.0038	.0038	.0040	.0027	.0069
12.....	.0063	.0045	.0045	0	.0065	.0041	.0046	.0034	.0042	.0048	.0051	.0049	.0054	.0034	.0069
13.....	.1184	.0404	.0459	0	.0336	.0291	.0193	.0397	.0359	.0447	.0444	.0494	.0797	.0372	.0310
14.....	.0053	.0017	.0024	0	.0034	.0043	.0038	.0046	.0015	.0010	.0013	.0011	.0021	.0009	.0035
15.....	.0026	.0016	.0018	0	.0162	.0441	.0019	.0023	.0017	.0023	.0031	.0114	.0322	.0063	.0017
16.....	.0019	.0029	.0016	0	.0056	.0023	.0073	.0057	.0019	.0021	.0030	.0037	.0109	.0025	.0031
17.....	.0541	.0098	.0292	0	.0159	.0184	.0040	.0384	.0066	.0271	.0085	.0146	.0063	.0341	.0095
18.....	.0165	.0097	.0050	0	.0056	.0109	.0035	.0043	.0068	.0052	.0062	.0435	.0643	.0048	.0059
19.....	.0038	.0094	.0046	0	.0124	.0046	.0035	.0044	.0145	.0182	.0108	.0197	.0133	.0255	.0069
20.....	1.0360	1.0084	1.0029	1.0000	.0027	.0023	.0076	.0022	.0046	.0029	.0037	.0077	.0035	.0082	.0048
21.....	.0055	.0061	.0061	0	1.0218	1.0081	1.0261	1.0089	.0062	.0074	.0073	.0082	.0069	.0059	.0045
22.....	.0015	.0018	.0018	0	.0015	.0014	.0013	.0019	1.0693	1.0900	1.0277	1.0086	1.0154	1.0061	1.0044
23.....	.0003	.0003	.0002	0	.0002	.0001	.0003	.0003	.0016	.0003	.0004	.0008	.0003	.0002	.0002
24.....	.0012	.0010	.0010	0	.0009	.0007	.0006	.0008	.0010	.0011	.0012	.0013	.0011	.0008	.0009
25.....	.0590	.0533	.0407	0	.0334	.0349	.0207	.0377	.0415	.0481	.0448	.0433	.0430	.0356	.0318
26.....	.0172	.0193	.0160	0	.0156	.0123	.0088	.0127	.0198	.0221	.0222	.0196	.0180	.0130	.0155
27.....	.0430	.0353	.0381	0	.0317	.0255	.0172	.0372	.0384	.0494	.0460	.0483	.0393	.0315	.0302
28.....	.0875	.0715	.0847	0	.0627	.0771	.0558	.0671	.0562	.0603	.0612	.0799	.0744	.0742	.1278
29.....	.0583	.0645	.0634	0	.0525	.0416	.0294	.0533	.0654	.0747	.0764	.0825	.0715	.0502	.0429
30.....	.0257	.0279	.0256	0	.0148	.0136	.0089	.0152	.0287	.0301	.0298	.0242	.0195	.0155	.0145
31.....	.0144	.0152	.0151	0	.0121	.0103	.0068	.0126	.0159	.0174	.0180	.0197	.0173	.0123	.0125
32.....	.0732	.0826	.0777	0	.0594	.0486	.0306	.0611	.0793	.0879	.0923	.1149	.0918	.0588	.0562
33.....	.0101	.0127	.0127	0	.0072	.0060	.0040	.0072	.0201	.0252	.0209	.0119	.0102	.0072	.0079
34.....	.0095	.0163	.0098	0	.0080	.0066	.0039	.0085	.0102	.0115	.0125	.0127	.0113	.0078	.0074
35.....	.0361	.0376	.0352	0	.0321	.0258	.0160	.0278	.0482	.0551	.0572	.0453	.0387	.0277	.0306
36.....	.0326	.0393	.0348	0	.0266	.0219	.0135	.0262	.0499	.0560	.0524	.0395	.0366	.0267	.0262
37.....	.0290	.0324	.0318	0	.0244	.0201	.0127	.0261	.0328	.0366	.0384	.0414	.0358	.0249	.0213
38.....	.0290	.0303	.0298	0	.0237	.0206	.0133	.0425	.0315	.0343	.0365	.0389	.0337	.0248	.0219
39.....	.5042	.5624	.5522	0	.4230	.3496	.2202	.4523	.5695	.6358	.6660	.7190	.6221	.4320	.3696
Total/1/	1.8588	1.7080	1.6964	1.0000	1.5921	1.5485	1.3576	1.6163	1.7692	1.9043	1.8167	1.8868	1.8667	1.6039	1.5899

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	61.0601	61.0602	61.0603	61.0700	62.0100	62.0200	62.0300	62.0400	62.0500	62.0600	62.0700	63.0100	63.0200	63.0300	64.0101
1.....	0.0066	0.0100	0.0049	0.0044	0.0062	0.0063	0.0067	0.0060	0.0082	0.0057	0.0048	0.0060	0.0065	0.0053	0.0051
2.....	.0049	.0105	.0028	.0012	.0014	.0009	.0010	.0012	.0012	.0009	.0006	.0009	.0009	.0010	.0007
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0112	.0130	.0099	.0107	.0153	.0150	.0210	.0167	.0155	.0164	.0108	.0164	.0229	.0201	.0116
5.....	.0005	.0008	.0005	.0004	.0003	.0004	.0020	.0009	.0008	.0010	.0004	.0011	.0017	.0029	.0003
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0177	.0203	.0126	.0194	.0183	.0194	.0219	.0207	.0189	.0191	.0144	.0180	.0259	.0190	.0164
8.....	.0184	.0200	.0156	.0176	.0258	.0270	.0280	.0245	.0280	.0244	.0195	.0264	.0277	.0211	.0211
9.....	.0004	.0005	.0009	.0001	.0001	.0002	.0002	.0002	.0026	.0002	.0001	.0001	.0002	.0002	.0001
10.....	.0059	.0047	.0046	.0038	.0053	.0060	.0059	.0059	.0049	.0051	.0042	.0053	.0058	.0043	.0044
11.....	.0129	.0059	.0040	.0056	.0044	.0066	.0094	.0329	.0311	.0147	.0089	.0062	.0055	.0266	.0110
12.....	.0044	.0041	.0040	.0031	.0051	.0081	.0067	.0059	.0068	.0082	.0093	.0047	.0069	.0085	.0110
13.....	.0342	.0484	.0369	.0387	.0440	.0484	.1086	.0753	.0662	.0572	.0432	.0599	.1241	.1286	.0292
14.....	.0032	.0032	.0022	.0019	.0033	.0043	.0061	.0121	.0055	.0073	.0058	.0201	.0087	.0044	.0006
15.....	.0804	.1781	.0446	.0116	.0123	.0024	.0033	.0067	.0050	.0029	.0018	.0018	.0023	.0035	.0018
16.....	.0048	.0127	.0071	.0018	.0031	.0042	.0027	.0051	.0061	.0095	.0030	.0111	.0355	.0023	.0015
17.....	.0139	.0073	.0124	.0211	.0047	.0120	.0138	.0100	.0032	.0820	.0130	.0075	.0082	.0143	.0657
18.....	.0152	.0222	.0094	.0104	.0061	.0068	.0082	.0056	.0046	.0043	.0057	.0047	.0028	.0037	.0014
19.....	.0021	.0042	.0251	.0068	.0138	.0055	.0072	.0042	.0068	.0051	.0029	.0034	.0056	.0032	.0023
20.....	.0081	.0086	.0041	.0033	.0076	.0134	.0040	.0024	.0024	.0066	.0091	.0044	.0023	.0039	.0017
21.....	.0090	.0063	.0476	.0068	.0063	.0069	.0069	.0060	.0055	.0058	.0048	.0061	.0067	.0050	.0050
22.....	1.0183	1.0018	1.0018	1.0371	.0017	.0017	.0018	.0016	.0015	.0015	.0013	.0017	.0017	.0014	.0012
23.....	.0002	.0003	.0002	.0002	1.0013	1.0011	1.0013	1.0003	1.0016	1.0003	1.0013	1.0005	1.0069	1.0011	.0002
24.....	.0015	.0010	.0007	.0007	.0011	.0012	.0024	.0011	.0011	.0012	.0029	.0011	.0012	.0010	1.0025
25.....	.0441	.0526	.0384	.0503	.0380	.0360	.0522	.0459	.0463	.0573	.0307	.0473	.0464	.0442	.0431
26.....	.0311	.0170	.0134	.0154	.0263	.0235	.0210	.0214	.0192	.0231	.0193	.0209	.0219	.0222	.0309
27.....	.0309	.0332	.0250	.0303	.0395	.0408	.0490	.0436	.0403	.0414	.0315	.0396	.0512	.0399	.0351
28.....	.0898	.1213	.0873	.0755	.0764	.0724	.0835	.0813	.0797	.0831	.1119	.0659	.0776	.0693	.1336
29.....	.0484	.0523	.0474	.0455	.0675	.0733	.0734	.0644	.0599	.0632	.0509	.0663	.0730	.0536	.0536
30.....	.0173	.0190	.0133	.0144	.0209	.0201	.0230	.0200	.0204	.0207	.0166	.0224	.0220	.0195	.0201
31.....	.0122	.0125	.0098	.0120	.0161	.0171	.0177	.0161	.0153	.0156	.0131	.0171	.0188	.0130	.0140
32.....	.0603	.0631	.0502	.0568	.0837	.0868	.0874	.0812	.0763	.0800	.0642	.0802	.0877	.0680	.0718
33.....	.0083	.0088	.0077	.0081	.0106	.0100	.0102	.0112	.0115	.0126	.0093	.0134	.0155	.0091	.0151
34.....	.0083	.0089	.0068	.0084	.0103	.0111	.0116	.0104	.0096	.0126	.0087	.0106	.0121	.0103	.0097
35.....	.0344	.0359	.0283	.0332	.0414	.0428	.0468	.0442	.0479	.0490	.0359	.0515	.0488	.0442	.0564
36.....	.0284	.0310	.0233	.0283	.0429	.0404	.0437	.0385	.0375	.0402	.0298	.0478	.0435	.0349	.0376
37.....	.0238	.0258	.0204	.0226	.0331	.0359	.0365	.0318	.0296	.0312	.0256	.0328	.0359	.0268	.0267
38.....	.0237	.0252	.0230	.0222	.0339	.0536	.0376	.0329	.0328	.0341	.0262	.0355	.0398	.0290	.0279
39.....	.4131	.4483	.3548	.3915	.5755	.6240	.6341	.5528	.5131	.5412	.4436	.5690	.6234	.4648	.4636
Total/1/	1.7347	1.8908	1.6461	1.6296	1.7283	1.7617	1.8625	1.7881	1.7534	1.8435	1.6415	1.7587	1.9038	1.7656	1.7706

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
(Dollars)

	64.0102	64.0104	64.0105	64.0200	64.0301	64.0302	64.0400	64.0501	64.0502	64.0503	64.0504	64.0600	64.0701	64.0702	64.0800
1.....	0.0036	0.0056	0.0062	0.0079	0.0072	0	0.0067	0	0	0.0081	0.0068	0.0671	0	0	0.0267
2.....	.0004	.0008	.0014	.0042	.0037	0	.0025	0	0	.0012	.0038	.0009	0	0	.0022
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0097	.0149	.0159	.0141	.0187	0	.0174	0	0	.0176	.0212	.0236	0	0	.0205
5.....	.0070	.0005	.0005	.0004	.0012	0	.0012	0	0	.0009	.0010	.0019	0	0	.0016
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0110	.0279	.0194	.0252	.0218	0	.0210	0	0	.0572	.0235	.0251	0	0	.0288
8.....	.0144	.0240	.0247	.0250	.0225	0	.0232	0	0	.0306	.0211	.0886	0	0	.0258
9.....	.0001	.0001	.0002	.0004	.0005	0	.0016	0	0	.0002	.0003	.0002	0	0	.0015
10.....	.0031	.0051	.0053	.0053	.0079	0	.0092	0	0	.0065	.0044	.0050	0	0	.0055
11.....	.0033	.0149	.0142	.0097	.0491	0	.0145	0	0	.0103	.2034	.0143	0	0	.0102
12.....	.0034	.0060	.0088	.0050	.0254	0	.0134	0	0	.0076	.0047	.0048	0	0	.0157
13.....	.0366	.0377	.0455	.0479	.1286	0	.1145	0	0	.0878	.0942	.1921	0	0	.1633
14.....	.0004	.0006	.0037	.0010	.0065	0	.0064	0	0	.0162	.0263	.0097	0	0	.0019
15.....	.0012	.0026	.0065	.0543	.0414	0	.0295	0	0	.0151	.0206	.0025	0	0	.0334
16.....	.0016	.0020	.0048	.0018	.0021	0	.0036	0	0	.0039	.0034	.0021	0	0	.0022
17.....	.0272	.0582	.0185	.0056	.0049	0	.0087	0	0	.0072	.0012	.0050	0	0	.0053
18.....	.0014	.0039	.0019	.0026	.0038	0	.0056	0	0	.0066	.0051	.0030	0	0	.0039
19.....	.0016	.0036	.0034	.0036	.0046	0	.0047	0	0	.0047	.0033	.0041	0	0	.0041
20.....	.0015	.0021	.0019	.0060	.0026	0	.0025	0	0	.0044	.0017	.0020	0	0	.0023
21.....	.0035	.0059	.0060	.0061	.0054	0	.0056	0	0	.0074	.0050	.0057	0	0	.0062
22.....	.0009	.0014	.0016	.0016	.0016	0	.0015	0	0	.0018	.0014	.0015	0	0	.0016
23.....	.0001	.0002	.0002	.0003	.0002	0	.0002	0	0	.0003	.0002	.0002	0	0	.0002
24.....	1.0010	1.0010	1.0032	1.0039	1.0016	1.0000	1.0328	1.0000	1.0000	1.0053	1.0010	1.0011	1.0000	1.0000	1.0087
25.....	.0719	.0496	.0649	.0417	.0528	0	.0601	0	0	.0458	.0662	.0577	0	0	.0620
26.....	.0117	.0179	.0239	.0212	.0358	0	.0302	0	0	.0875	.0168	.0279	0	0	.0282
27.....	.0216	.0487	.0436	.0400	.0451	0	.0446	0	0	.0478	.0531	.0450	0	0	.0509
28.....	.1489	.0722	.1008	.0986	.0881	0	.0875	0	0	.0683	.1220	.1036	0	0	.0840
29.....	.0382	.0630	.0647	.0656	.0585	0	.0600	0	0	.0803	.0540	.0614	0	0	.0672
30.....	.0126	.0205	.0213	.0219	.0218	0	.0245	0	0	.0341	.0211	.0224	0	0	.0233
31.....	.0096	.0153	.0170	.0155	.0151	0	.0155	0	0	.0184	.0135	.0171	0	0	.0189
32.....	.0463	.0754	.0825	.0849	.0851	0	.0846	0	0	.0989	.0732	.0854	0	0	.0877
33.....	.0059	.0092	.0097	.0096	.0131	0	.0116	0	0	.0113	.0096	.0095	0	0	.0141
34.....	.0058	.0106	.0106	.0108	.0098	0	.0099	0	0	.0167	.0094	.0112	0	0	.0114
35.....	.0222	.0391	.0412	.0390	.0504	0	.0445	0	0	.0755	.0379	.0445	0	0	.0477
36.....	.0219	.0368	.0385	.0385	.0356	0	.0363	0	0	.0485	.0318	.0391	0	0	.0400
37.....	.0188	.0314	.0322	.0327	.0289	0	.0297	0	0	.0391	.0267	.0309	0	0	.0333
38.....	.0201	.0308	.0346	.0304	.0321	0	.0319	0	0	.0509	.0280	.0394	0	0	.0326
39.....	.3265	.5456	.5585	.5681	.5012	0	.5149	0	0	.6783	.4642	.5291	0	0	.5785
Total/1/	1.5885	1.7397	1.7793	1.7822	1.9336	1.0000	1.8972	1.0000	1.0000	2.0238	2.0167	2.0558	1.0000	1.0000	1.9727

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

		64.0900	64.1000	64.1100	64.1200	65.0100	65.0200	65.0300	65.0400	65.0500	65.0600	65.0701	65.0702	66.0000	67.0000	68.0100
1.....	0	0.0066	0.0076	0.0075	0.0089	0.0077	0.0079	0.0061	0.0061	0.0035	0.0085	0.0091	0.0051	0.0045	0.0059	
2.....	0	.0024	.0024	.0036	.0020	.0010	.0010	.0008	.0009	.0004	.0013	.0012	.0006	.0006	.0005	
3.....	0	0	0	0	0	0	0	0	0	.0001	0	0	0	0	.0005	
4.....	0	.0145	.0175	.0287	.0435	.0440	.0354	.0430	.0652	.0375	.0212	.0171	.0101	.0094	.0777	
5.....	0	.0004	.0008	.0029	.0018	.0005	.0004	.0005	.0004	.0009	.0003	.0003	.0002	.0002	.0005	
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7.....	0	.0244	.0267	.0229	.1883	.0360	.0307	.0515	.0226	.0889	.0250	.0272	.0484	.0170	.0719	
8.....	0	.0239	.0271	.0253	.0363	.0329	.0338	.0261	.0277	.0139	.0382	.0396	.0191	.0199	.0127	
9.....	0	.0017	.0002	.0004	.0002	.0002	.0002	.0039	.0001	.0001	.0002	.0002	.0001	.0001	.0001	
10.....	0	.0052	.0066	.0070	.0080	.0079	.0078	.0078	.0053	.0062	.0072	.0082	.0044	.0040	.0028	
11.....	0	.0060	.0235	.0311	.0047	.0045	.0044	.0040	.0037	.0026	.0069	.0062	.0028	.0026	.0020	
12.....	0	.0063	.0104	.0048	.0065	.0073	.0061	.0070	.0082	.0028	.0174	.0179	.0042	.0053	.0030	
13.....	0	.0463	.0861	.1482	.1140	.1149	.0915	.1100	.1660	.0451	.0528	.0433	.0250	.0234	.1497	
14.....	0	.0008	.0098	.0057	.0010	.0010	.0008	.0009	.0006	.0004	.0011	.0009	.0010	.0005	.0004	
15.....	0	.0253	.0302	.0264	.0172	.0022	.0023	.0029	.0015	.0012	.0047	.0023	.0017	.0013	.0026	
16.....	0	.0023	.0029	.0024	.0046	.0041	.0025	.0029	.0017	.0092	.0022	.0023	.0015	.0014	.0021	
17.....	0	.0127	.0094	.0061	.0060	.0022	.0007	.0028	.0010	.0018	.0006	.0005	.0013	.0003	.0014	
18.....	0	.0051	.0051	.0063	.0092	.0068	.0034	.0080	.0024	.0131	.0022	.0021	.0020	.0013	.0067	
19.....	0	.0038	.0038	.0067	.0027	.0023	.0022	.0101	.0024	.0053	.0019	.0014	.0010	.0008	.0051	
20.....	0	.0020	.0193	.0022	.0035	.0036	.0027	.0034	.0021	.0032	.0030	.0030	.0270	.0021	.0021	
21.....	0	.0057	.0067	.0060	.0094	.0090	.0089	.0066	.0059	.0035	.0085	.0095	.0049	.0045	.0032	
22.....	0	.0014	.0016	.0016	.0033	.0021	.0020	.0420	.0196	.0012	.0025	.0021	.0011	.0011	.0022	
23.....	0	.0002	.0003	.0002	.0003	.0002	.0002	.0003	.0002	.0001	.0002	.0002	.0001	.0004	.0002	
24.....	1.0000	1.0328	1.0057	1.0042	.0015	.0014	.0014	.0017	.0011	.0006	.0018	.0021	.0009	.0008	.0006	
25.....	0	.0503	.0505	.0598	1.1210	1.0599	1.1912	1.5658	1.0937	1.0379	1.0950	1.0448	.0265	.0274	.0617	
26.....	0	.0187	.0275	.0248	.0241	.0254	.0282	.0328	.0264	.0129	.0541	.0527	1.0276	1.0255	.0128	
27.....	0	.0410	.0443	.0470	.0500	.0522	.0451	.0529	.0380	.1470	.0497	.0542	.0312	.0304	1.1159	
28.....	0	.1217	.0800	.0845	.0649	.0787	.0685	.0558	.0513	.0339	.0546	.0500	.0299	.0299	.0393	
29.....	0	.0619	.0714	.0641	.0997	.1048	.1031	.0707	.0639	.0393	.0945	.1019	.0525	.0486	.0349	
30.....	0	.0214	.0229	.0244	.0302	.0285	.0272	.0464	.0218	.0232	.0491	.0490	.0182	.0200	.0156	
31.....	0	.0155	.0175	.0161	.0229	.0350	.0281	.0389	.0160	.0139	.0408	.0241	.0127	.0120	.0095	
32.....	0	.0783	.0967	.0856	.1144	.1139	.1149	.1016	.0874	.0494	.1218	.1623	.0715	.0886	.0475	
33.....	0	.0093	.0105	.0094	.0142	.0121	.0131	.0107	.0096	.0099	.0151	.0150	.0076	.0584	.0055	
34.....	0	.0105	.0116	.0102	.0150	.0149	.0141	.0115	.0131	.0062	.0146	.0165	.0088	.0141	.0064	
35.....	0	.0415	.0451	.0399	.0641	.0432	.0442	.0830	.0555	.0287	.0751	.0679	.0325	.0417	.0236	
36.....	0	.0382	.0411	.0373	.0481	.0432	.0455	.0373	.0563	.0207	.0763	.0630	.0264	.0376	.0182	
37.....	0	.0308	.0355	.0318	.0496	.0453	.0463	.0345	.0319	.0184	.0454	.0513	.0260	.0243	.0170	
38.....	0	.0300	.0354	.0335	.0499	.0656	.0748	.0553	.0316	.0238	.0516	.0473	.0248	.0263	.0209	
39.....	0	.5343	.6158	.5514	.8619	.7852	.8037	.5961	.5538	.3190	.7869	.8913	.4521	.4225	.2954	
Total/1/	1.0000	1.7989	1.8936	1.9186	2.2412	2.0145	2.0903	2.5596	1.9414	1.7069	2.0453	1.9969	1.5588	1.5865	1.7829	

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	68.0200	68.0301	68.0302	69.0100	69.0200	70.0100	70.0200	70.0300	70.0400	70.0500	71.0100	71.0200	72.0100	72.0201	72.0202
1.....	0.0025	0.0054	0.0062	0.0099	0.0076	0.0061	0.0043	0.0085	0.0075	0.0098	0.0060	0.0039	0.0092	0.0079	0.0070
2.....	.0003	.0007	.0026	.0011	.0010	.0009	.0007	.0011	.0009	.0012	.0003	.0004	.0009	.0011	.0011
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.2869	.0204	.0553	.0193	.0211	.0132	.0122	.0184	.0155	.0211	.0032	.0075	.0222	.0280	.0209
5.....	.0004	.0034	.0026	.0003	.0003	.0002	.0002	.0003	.0003	.0003	.0005	.0003	.0006	.0006	.0022
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0369	.2196	.0631	.0247	.0287	.0209	.0190	.0240	.0208	.0248	.0959	.0643	.0547	.0282	.0332
8.....	.0104	.0202	.0208	.0321	.0326	.0267	.0187	.0371	.0327	.0428	.0044	.0082	.0304	.0340	.0289
9.....	.0001	.0001	.0001	.0003	.0002	.0001	.0001	.0002	.0002	.0002	0	0	.0004	.0015	.0003
10.....	.0023	.0043	.0045	.0063	.0072	.0069	.0035	.0080	.0070	.0093	.0010	.0017	.0087	.0214	.0074
11.....	.0013	.0048	.0034	.0079	.0128	.0082	.0051	.0080	.0042	.0053	.0012	.0019	.0058	.0124	.0084
12.....	.0021	.0051	.0042	.0109	.0165	.0179	.0151	.0175	.0083	.0111	.0012	.0051	.0116	.0094	.0153
13.....	.0241	.0731	.1830	.0476	.0527	.0318	.0306	.0461	.0399	.0545	.0127	.0162	.0545	.0769	.0555
14.....	.0003	.0015	.0008	.0011	.0010	.0007	.0006	.0009	.0007	.0009	.0005	.0006	.0025	.0018	.0022
15.....	.0008	.0023	.0282	.0035	.0023	.0020	.0015	.0023	.0018	.0022	.0043	.0029	.0041	.0023	.0040
16.....	.0019	.0132	.0043	.0023	.0021	.0016	.0013	.0022	.0018	.0023	.0040	.0029	.0056	.0022	.0540
17.....	.0008	.0050	.0019	.0005	.0005	.0004	.0004	.0005	.0004	.0005	.0004	.0004	.0007	.0008	.0018
18.....	.0051	.0484	.0136	.0022	.0023	.0017	.0015	.0020	.0017	.0021	.0031	.0025	.0036	.0028	.0041
19.....	.0031	.0038	.0022	.0020	.0014	.0009	.0008	.0012	.0010	.0012	.0006	.0006	.0014	.0025	.0017
20.....	.0012	.0039	.0024	.0025	.0025	.0025	.0032	.0032	.0025	.0032	.0011	.0012	.0028	.0024	.0024
21.....	.0026	.0050	.0052	.0072	.0083	.0064	.0037	.0093	.0082	.0109	.0011	.0019	.0069	.0082	.0069
22.....	.0007	.0014	.0014	.0017	.0019	.0015	.0010	.0022	.0018	.0024	.0003	.0005	.0016	.0019	.0017
23.....	.0001	.0014	.0003	.0002	.0002	.0002	.0001	.0002	.0002	.0003	.0001	.0001	.0002	.0002	.0002
24.....	.0004	.0010	.0019	.0014	.0017	.0015	.0014	.0018	.0016	.0018	.0003	.0005	.0019	.0015	.0609
25.....	.0177	.0516	.0717	.0602	.0455	.0479	.0509	.0643	.0463	.0561	.0083	.0122	.0416	.0465	.0546
26.....	.0081	.0148	.0295	.0370	.0381	.0385	.0521	.0592	.0381	.0459	.0043	.0111	.0417	.0269	.0335
27.....	1.5374	1.0966	1.1001	.0496	.0636	.0479	.0468	.0509	.0406	.0504	.0072	.0270	.0969	.0804	.0796
28.....	.0183	.0591	.0676	1.0563	.0501	.0386	.0299	.0507	.0434	.0568	.0134	.0161	.0488	.0628	.0825
29.....	.0285	.0527	.0666	.0797	1.0904	.0688	.0417	.0995	.0877	.1176	.0205	.0264	.0762	.0917	.0755
30.....	.0142	.0261	.0204	.0280	.0291	1.0550	1.0003	1.0589	.0445	.0291	.0164	.0166	.0379	.0298	.0297
31.....	.0081	.0224	.0149	.0224	.0261	.0168	.0138	.0251	1.4136	1.0263	.0234	.0122	.0273	.0233	.0250
32.....	.0575	.0758	.0692	.1046	.1434	.0898	.0936	.1343	.1241	.1518	1.0426	1.0906	.1208	.1292	.1207
33.....	.0043	.0152	.0080	.0157	.0139	.0103	.0125	.0252	.0187	.0194	.0020	.0034	1.0108	.0127	.0119
34.....	.0046	.0135	.0092	.0121	.0150	.0111	.0076	.0153	.0139	.0177	.0018	.0034	.0255	1.0425	1.0249
35.....	.0179	.0437	.0443	.0781	.0644	.0733	.1125	.0948	.0553	.0693	.0188	.0260	.0727	.0673	.0623
36.....	.0148	.0316	.0302	.0638	.0447	.0435	.0436	.0531	.0471	.0560	.0062	.0150	.0419	.0539	.0476
37.....	.0141	.0256	.0275	.0384	.0444	.0346	.0199	.0500	.0523	.0590	.0060	.0103	.0368	.0443	.0370
38.....	.0219	.0264	.0300	.0527	.0468	.0347	.0407	.0466	.0412	.0520	.0071	.0124	.0449	.0498	.0577
39.....	.2445	.4441	.4773	.6664	.7713	.5999	.3444	.8673	.7636	1.0241	.1020	.1785	.6373	.7681	.6421
Total/1/	2.1517	1.9991	1.9972	1.8835	1.9204	1.7631	1.8910	2.0227	2.2256	2.0157	1.3203	1.4062	1.9540	2.0090	2.0625

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	72.0203	72.0204	72.0205	72.0300	73.0101	73.0102	73.0103	73.0104	73.0105	73.0106	73.0107	73.0108	73.0109	73.0200	73.0301
1.....	0.0071	0.0055	0.0063	0.0082	0.0053	0.0077	0.0096	0.0068	0.0087	0.0089	0.0054	0.0058	0.0069	0.0067	0.0105
2.....	.0009	.0007	.0010	.0010	.0007	.0009	.0013	.0009	.0011	.0011	.0008	.0008	.0009	.0009	.0013
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0160	.0126	.0162	.0190	.0136	.0194	.0184	.0137	.0172	.0183	.0100	.0122	.0241	.0186	.0221
5.....	.0003	.0002	.0006	.0003	.0003	.0005	.0003	.0002	.0006	.0003	.0002	.0003	.0004	.0003	.0004
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0233	.0145	.0190	.0224	.0204	.0197	.0253	.0190	.0254	.0276	.0170	.0210	.0258	.0197	.0279
8.....	.0310	.0236	.0266	.0352	.0225	.0334	.0424	.0297	.0371	.0384	.0245	.0254	.0292	.0295	.0460
9.....	.0003	.0001	.0007	.0002	.0001	.0002	.0002	.0001	.0003	.0002	.0001	.0001	.0002	.0001	.0002
10.....	.0097	.0052	.0071	.0081	.0052	.0082	.0088	.0063	.0073	.0084	.0046	.0053	.0066	.0060	.0097
11.....	.0063	.0039	.0072	.0041	.0039	.0045	.0055	.0052	.0055	.0044	.0032	.0035	.0082	.0058	.0055
12.....	.0112	.0071	.0068	.0056	.0072	.0082	.0127	.0105	.0108	.0065	.0067	.0078	.0104	.0181	.0106
13.....	.0391	.0321	.0506	.0474	.0360	.0662	.0458	.0349	.0523	.0465	.0255	.0318	.0647	.0474	.0559
14.....	.0007	.0011	.0019	.0029	.0018	.0009	.0009	.0007	.0013	.0012	.0006	.0007	.0019	.0008	.0010
15.....	.0019	.0015	.0059	.0019	.0016	.0020	.0021	.0017	.0021	.0021	.0013	.0015	.0021	.0018	.0023
16.....	.0019	.0014	.0017	.0020	.0016	.0019	.0022	.0017	.0027	.0024	.0014	.0017	.0020	.0017	.0025
17.....	.0005	.0007	.0007	.0005	.0013	.0005	.0005	.0004	.0008	.0006	.0004	.0004	.0006	.0004	.0005
18.....	.0019	.0017	.0021	.0020	.0038	.0022	.0021	.0016	.0023	.0023	.0016	.0016	.0025	.0017	.0023
19.....	.0025	.0047	.0010	.0011	.0188	.0016	.0012	.0011	.0021	.0013	.0034	.0011	.0025	.0011	.0013
20.....	.0025	.0076	.0031	.0041	.0018	.0026	.0026	.0026	.0066	.0033	.0017	.0036	.0039	.0021	.0032
21.....	.0078	.0061	.0068	.0091	.0058	.0086	.0103	.0074	.0083	.0101	.0054	.0062	.0076	.0071	.0114
22.....	.0017	.0014	.0015	.0020	.0016	.0019	.0023	.0017	.0021	.0022	.0012	.0015	.0018	.0016	.0026
23.....	.0013	.0003	.0002	.0003	.0007	.0002	.0003	.0002	.0003	.0006	.0002	.0020	.0002	.0003	.0003
24.....	.0013	.0011	.0016	.0024	.0010	.0020	.0019	.0012	.0016	.0017	.0015	.0010	.0012	.0013	.0018
25.....	.0339	.0280	.0352	.0355	.0325	.0411	.0472	.0342	.0617	.0463	.0324	.0411	.0790	.0369	.0624
26.....	.0381	.0205	.0257	.0272	.0168	.0266	.0299	.0355	.0410	.0341	.0230	.0383	.0888	.0379	.0410
27.....	.0564	.0359	.0412	.0679	.0367	.0460	.0538	.0378	.0521	.0540	.0293	.0370	.0438	.0395	.0563
28.....	.0507	.0847	.0712	.0576	.0676	.0596	.0537	.0425	.0525	.0587	.0336	.0390	.0530	.0466	.0610
29.....	.0829	.0646	.0741	.0973	.0626	.0927	.1101	.0791	.0888	.1044	.0578	.0667	.0901	.0772	.1219
30.....	.0285	.0172	.0213	.0259	.0167	.0281	.0333	.0264	.0311	.0337	.0192	.0241	.0279	.0296	.0309
31.....	.0203	.0158	.0192	.0214	.0166	.0221	.0237	.0193	.0233	.0245	.0187	.0181	.0215	.0194	.0295
32.....	.1135	.0829	.0903	.1523	.0801	.1114	.1407	.1008	.1173	.1338	.0752	.0919	.1092	.1274	.1702
33.....	.0119	.0094	.0106	.0133	.0091	.0129	.0146	.0118	.0177	.0613	.0086	.0127	.0156	.0168	.0269
34.....	1.0144	1.0126	1.0115	1.0259	.0094	.0145	.0169	.0117	.0153	.0217	.0120	.0104	.0122	.0115	.0176
35.....	.0689	.0261	.0460	.0292	1.0359	1.0482	1.0561	1.0635	1.0937	1.0490	1.0776	1.0918	1.0540	1.0465	1.0595
36.....	.0444	.0311	.0352	.0437	.0293	.0419	.0675	.0434	.0641	.0525	.0505	.0405	.0364	.0492	.0693
37.....	.0417	.0324	.0364	.0490	.0310	.0461	.0556	.0398	.0442	.0521	.0291	.0332	.0406	.0377	.0614
38.....	.0518	.0350	.0446	.0474	.0359	.0501	.0503	.0380	.0537	.0547	.0280	.0451	.0529	.0473	.0546
39.....	.7240	.5632	.6327	.8511	.5376	.7997	.9654	.6917	.7676	.9044	.5039	.5771	.7054	.6544	1.0653
Total/1/	1.8265	1.6295	1.7310	1.8733	1.6353	1.8347	1.9495	1.7313	1.9529	1.9688	1.6117	1.7251	1.9287	1.7965	2.0818

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	73.0302	73.0303	74.0000	75.0001	75.0002	75.0003	76.0100	76.0201	76.0202	76.0203	76.0204	76.0205	76.0206	77.0100	77.0200
1.....	0.0091	0.0090	0.0278	0.0046	0.0056	0.0051	0.0053	0.0069	0.0070	0.0091	0.0231	0.0305	0.0189	0.0094	0.0108
2.....	.0012	.0012	.0096	.0006	.0007	.0007	.0009	.0012	.0011	.0011	.0006	.0012	.0011	.0011	.0014
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0196	.0170	.0152	.0370	.0140	.0177	.0114	.0187	.0204	.0203	.0099	.0256	.0172	.0192	.0250
5.....	.0003	.0003	.0004	.0003	.0004	.0005	.0002	.0004	.0005	.0004	.0004	.0009	.0006	.0004	.0015
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0284	.0228	.0245	.0210	.0234	.0534	.0272	.0530	.0817	.0427	.0483	.0963	.0453	.0255	.0457
8.....	.0397	.0398	.1637	.0195	.0235	.0218	.0232	.0284	.0302	.0406	.0192	.0308	.0362	.0410	.0466
9.....	.0002	.0002	.0003	.0002	.0001	.0002	.0002	.0004	.0002	.0002	.0001	.0002	.0021	.0002	.0003
10.....	.0084	.0081	.0055	.0053	.0051	.0058	.0054	.0132	.0061	.0082	.0036	.0068	.0068	.0089	.0100
11.....	.0084	.0044	.0101	.0033	.0039	.0036	.0047	.0045	.0054	.0063	.0028	.0063	.0054	.0049	.0065
12.....	.0117	.0073	.0084	.0068	.0073	.0062	.0180	.0107	.0146	.0120	.0066	.0192	.0088	.0068	.0075
13.....	.0497	.0430	.0398	.0916	.0380	.0431	.0291	.0480	.0512	.0520	.0253	.0639	.0457	.0519	.0938
14.....	.0011	.0009	.0023	.0006	.0007	.0008	.0006	.0009	.0011	.0011	.0006	.0012	.0023	.0012	.0043
15.....	.0025	.0020	.0023	.0014	.0020	.0027	.0049	.0102	.0039	.0032	.0020	.0043	.0034	.0021	.0028
16.....	.0024	.0022	.0043	.0033	.0065	.0030	.0017	.0028	.0037	.0029	.0022	.0047	.0029	.0024	.0035
17.....	.0006	.0005	.0005	.0011	.0009	.0007	.0004	.0007	.0008	.0008	.0004	.0011	.0009	.0006	.0011
18.....	.0024	.0019	.0029	.0102	.0028	.0033	.0018	.0034	.0048	.0031	.0028	.0057	.0039	.0022	.0036
19.....	.0015	.0015	.0030	.0214	.0016	.0011	.0009	.0017	.0027	.0014	.0008	.0019	.0014	.0013	.0017
20.....	.0031	.0028	.0023	.0030	.0047	.0117	.0016	.0050	.0031	.0028	.0016	.0036	.0027	.0029	.0034
21.....	.0098	.0095	.0063	.0054	.0111	.0053	.0049	.0071	.0068	.0094	.0041	.0070	.0068	.0104	.0088
22.....	.0023	.0022	.0024	.0014	.0016	.0012	.0012	.0016	.0016	.0021	.0010	.0019	.0105	.0023	.0021
23.....	.0003	.0003	.0002	.0002	.0002	.0002	.0004	.0003	.0002	.0003	.0001	.0002	.0002	.0009	.0014
24.....	.0018	.0017	.0013	.0009	.0010	.0014	.0012	.0013	.0064	.0215	.0007	.0078	.0019	.0018	.0016
25.....	.0602	.0479	.0507	.0354	.0545	.0342	.0401	.0563	.0436	.0493	.0221	.0653	.0468	.0439	.0538
26.....	.0474	.0345	.0239	.0256	.0272	.0245	.0294	.0317	.0425	.0368	.0183	.0612	.0272	.0320	.0303
27.....	.0514	.0487	.0529	.0470	.0379	.0532	.0371	.0512	.0729	.0536	.0419	.0877	.0570	.0602	.0657
28.....	.0553	.0515	.1040	.0616	.1226	.0375	.0342	.0469	.0497	.0588	.0301	.0681	.0568	.0599	.0705
29.....	.1055	.1016	.0684	.0670	.1025	.0646	.0532	.0833	.0783	.1011	.0456	.0804	.0732	.1110	.0970
30.....	.0375	.0287	.0270	.0181	.0182	.0200	.0199	.0260	.0323	.0375	.0185	.0309	.0255	.0305	.0251
31.....	.0256	.0242	.0182	.0293	.0149	.0229	.0139	.0317	.0290	.0390	.0101	.0328	.0258	.0325	.0260
32.....	.1412	.1546	.1009	.0753	.0843	.1189	.1044	.1260	.1561	.1457	.0693	.1351	.1058	.1560	.1501
33.....	.0331	.0220	.0128	.0079	.0091	.0088	1.0760	1.0567	1.0149	1.2512	1.0954	1.0127	1.0184	.0153	.0131
34.....	.0189	.0158	.0150	.0091	.0113	.0089	.0094	.0276	.0246	.0213	.0071	.0211	.0154	.0179	.0167
35.....	1.1502	1.0941	.0522	.0577	.0341	.0846	.0389	.1270	.1312	.0494	.0318	.1383	.0692	.0629	.0733
36.....	.0602	.0677	1.0345	.0295	.0324	.0345	.0347	.0375	.0627	.0447	.0251	.0610	.0477	.0561	.0549
37.....	.0527	.0512	.0338	.0259	.0319	.0287	.0262	.0382	.0360	.0504	.0258	.0372	.0380	1.1029	1.0526
38.....	.0657	.0470	.0337	1.0356	1.0317	1.0354	.0309	.0688	.0593	.0527	.0224	.0599	.0468	.0525	.0432
39.....	.9144	.8891	.5851	.4478	.5534	.4974	.4553	.6626	.6232	.8739	.3819	.6441	.6201	.9701	.8247
Total/1/	2.1095	1.9679	1.9612	1.7642	1.7676	1.7662	1.6938	2.0296	2.0865	2.2329	1.6196	2.2127	1.8785	2.0309	2.0557

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	77.0301	77.0302	77.0401	77.0402	77.0403	77.0501	77.0502	77.0503	77.0504	77.0600	77.0700	77.0800	77.0900	78.0100	78.0200
1.....	0.0156	0.0087	0.0101	0.0109	0.0105	0.0090	0.0104	0.0098	0.0116	0.0130	0.0101	0.0384	0.0145	0.0105	0
2.....	.0016	.0011	.0017	.0012	.0012	.0015	.0017	.0013	.0014	.0014	.0010	.0016	.0019	.0012	0
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0259	.0230	.0253	.0258	.0290	.0201	.0250	.0259	.0293	.0197	.0163	.0217	.0208	.0235	0
5.....	.0005	.0022	.0009	.0006	.0005	.0005	.0006	.0007	.0006	.0005	.0005	.0005	.0009	.0004	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0308	.0294	.0732	.0620	.0335	.0577	.0703	.1204	.0612	.0353	.0246	.0442	.0736	.0313	0
8.....	.0648	.0366	.0372	.0387	.0364	.0375	.0414	.0388	.0385	.0387	.0418	.1247	.0587	.0455	0
9.....	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0003	.0002	.0007	.0002	.0005	.0002	.0003	0
10.....	.0088	.0080	.0073	.0085	.0078	.0073	.0083	.0096	.0087	.0085	.0074	.0128	.0081	.0125	0
11.....	.0059	.0053	.0392	.0073	.0126	.0179	.0163	.0123	.0161	.0109	.0074	.0074	.0147	.0056	0
12.....	.0073	.0072	.0114	.0109	.0159	.0757	.0487	.0079	.0708	.0098	.0055	.0064	.0446	.0082	0
13.....	.0622	.1112	.0674	.0602	.0754	.0536	.0577	.0663	.0726	.0526	.0407	.0516	.0529	.0601	0
14.....	.0019	.0033	.0015	.0011	.0013	.0012	.0013	.0013	.0013	.0066	.0023	.0018	.0018	.0010	0
15.....	.0023	.0023	.0070	.0034	.0030	.0041	.0044	.0056	.0041	.0114	.0028	.0028	.0043	.0026	0
16.....	.0027	.0031	.0052	.0045	.0042	.0032	.0038	.0052	.0036	.0027	.0020	.0030	.0047	.0026	0
17.....	.0006	.0014	.0010	.0008	.0007	.0007	.0009	.0010	.0009	.0020	.0005	.0006	.0010	.0007	0
18.....	.0027	.0029	.0047	.0040	.0030	.0042	.0047	.0066	.0046	.0072	.0021	.0033	.0047	.0026	0
19.....	.0014	.0017	.0018	.0017	.0016	.0015	.0017	.0016	.0017	.0018	.0011	.0014	.0015	.0017	0
20.....	.0032	.0033	.0057	.0044	.0054	.0029	.0039	.0038	.0032	.0028	.0036	.0028	.0040	.0031	0
21.....	.0096	.0092	.0083	.0096	.0092	.0083	.0086	.0100	.0090	.0098	.0086	.0086	.0094	.0119	0
22.....	.0022	.0021	.0020	.0024	.0021	.0020	.0021	.0023	.0023	.0023	.0019	.0021	.0023	.0031	0
23.....	.0010	.0011	.0003	.0004	.0003	.0003	.0004	.0003	.0003	.0003	.0003	.0002	.0003	.0003	0
24.....	.0018	.0015	.0112	.0019	.0018	.0025	.0027	.0028	.0019	.0035	.0030	.0025	.0030	.0024	0
25.....	.0471	.0537	.0613	.0614	.0608	.1032	.0758	.0529	.0851	.0535	.0362	.0644	.0828	1.1151	0
26.....	.0252	.0317	.0468	.0335	.0513	.0311	.0416	.0346	.0401	.0244	.0206	.0334	.0659	.0288	0
27.....	.0827	.0582	.0746	.0813	.0622	.0703	.0853	.0597	.0744	.0665	.0556	.0796	.0630	.0593	1.0000
28.....	.0679	.0736	.0724	.0609	.0598	.0670	.0664	.0628	.0734	.0745	.0506	.0734	.0664	.0629	0
29.....	.1031	.0990	.0918	.1049	.1024	.0905	.0945	.1119	.1005	.1051	.0923	.0938	.1038	.1277	0
30.....	.0287	.0295	.0285	.0287	.0329	.0306	.0280	.0300	.0345	.0289	.0236	.0264	.0343	.0304	0
31.....	.0252	.0234	.0250	.0257	.0226	.0221	.0232	.0323	.0276	.0232	.0205	.0212	.0227	.0271	0
32.....	.1630	.1450	.1770	.1970	.1501	.1257	.1476	.2195	.1344	.1314	.1169	.1739	.1351	.1598	0
33.....	.0147	.0150	.0188	.0154	.0191	.0168	.0359	.0299	.0407	.0173	.0120	.0151	.0208	.0165	0
34.....	.0259	.0147	.0191	.0192	.0184	.0180	.0177	.0165	.0186	.0195	.0158	.0199	.0166	.0183	0
35.....	.0533	.0665	.0888	.0629	.0790	.0737	.0920	.0443	.0588	.0787	.0386	.0767	.0832	.0515	0
36.....	.0523	.0490	.0495	.0576	.0512	.0788	.0974	.0477	.0609	.0512	.0439	.0490	.0630	.0558	0
37.....	1.0625	1.0516	.0451	.0511	.0489	.0443	.0459	.0536	.0482	.0615	.0464	.0462	.0505	.0635	0
38.....	.0518	.0500	1.0595	1.0619	1.0592	1.0660	1.0540	1.0530	1.0619	1.0475	1.0425	1.0583	1.0523	.0623	0
39.....	.8932	.8617	.7679	.8875	.8488	.7693	.7976	.9306	.8364	.9178	.8057	.7994	.8759	1.1030	0
Total/1/	2.0565	2.0256	2.1808	2.1221	2.0736	2.1499	2.2207	2.1825	2.2029	2.0249	1.7993	2.1701	2.1881	2.1098	1.0000

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-1.1.-- 39-Industry-by-531-Industry Multipliers for Output--Continued
[Dollars]

	78.0300	78.0400	79.0100	79.0200	79.0300	91.0000
1.....	0	0.0138	0.0069	0.0073	0.0076	0.0124
2.....	0	.0049	.0009	.0006	.0010	.0014
3.....	0	0	0	.0006	.0001	0
4.....	0	.0195	.0427	.0687	.0461	.0215
5.....	0	.0003	.0016	.0005	.0038	.0004
6.....	0	0	0	0	0	0
7.....	0	.0169	.1364	.0893	.2908	.0265
8.....	0	.0749	.0256	.0154	.0286	.0546
9.....	0	.0003	.0002	.0001	.0002	.0002
10.....	0	.0047	.0060	.0033	.0064	.0121
11.....	0	.0090	.0052	.0026	.0043	.0054
12.....	0	.0074	.0076	.0029	.0061	.0074
13.....	0	.0397	.1073	.1231	.0827	.0554
14.....	0	.0011	.0022	.0004	.0016	.0011
15.....	0	.0019	.0038	.0032	.0048	.0025
16.....	0	.0019	.0071	.0026	.0168	.0027
17.....	0	.0009	.0027	.0014	.0033	.0006
18.....	0	.0026	.0098	.0078	.0219	.0024
19.....	0	.0022	.0048	.0034	.0095	.0013
20.....	0	.0042	.0117	.0019	.0030	.0033
21.....	0	.0055	.0072	.0038	.0072	.0142
22.....	0	.0019	.0026	.0013	.0030	.0031
23.....	0	.0002	.0003	.0002	.0003	.0003
24.....	0	.0012	.0013	.0007	.0015	.0020
25.....	0	.0397	1.0536	.0618	.0532	.0470
26.....	0	.0289	.0171	.0101	.0238	.0285
27.....	0	.0584	.0872	1.1208	.2335	.0598
28.....	0	.0654	.0765	.0405	.0566	.0669
29.....	0	.0620	.0919	.0412	.0837	.1509
30.....	0	.0264	.0184	.0129	.0224	.0353
31.....	0	.0132	.0212	.0109	.0185	.0314
32.....	0	.0732	.0833	.0556	.0965	.1691
33.....	0	.0124	.0102	.0057	.0112	.0191
34.....	0	.0165	.0123	.0065	.0125	.0213
35.....	0	.0829	.0447	.0256	.0481	.0379
36.....	0	.0469	.0380	.0240	.0428	.0653
37.....	0	.0296	.0349	.0202	.0382	.0768
38.....	0	1.0440	.0364	.0232	1.0409	.0607
39.....	0	.5141	.5896	.3509	.6612	1.3348
Total/1/	0	1.8146	2.0191	1.8002	2.3325	1.1006

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix C identifies the column industries, and appendix D identifies the row industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-2.1.-- 39-Industry-by-39-Industry Multipliers for Output
[Dollars]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.....	1.1192	0.0543	0.0061	0.0035	0.0061	0.0118	0.0140	0.1674	0.0196	0.0075	0.0119	0.0092	0.0051	0.0065	0.0581
2.....	.0014	1.0055	.0012	.0005	.0009	.0075	.0037	.0108	.0008	.0049	.0128	.0028	.0008	.0012	.1243
3.....	0	0	1.0007	0	0	0	0	0	0	0	.0001	0	0	0	0
4.....	.0359	.0309	.0181	1.0375	.0399	.0228	.0254	.0189	.0321	.0111	.0480	.0237	.2887	.0868	.0242
5.....	.0020	.0016	.0012	.0010	1.0450	.0055	.0076	.0016	.0018	.0005	.0032	.0013	.0133	.0049	.0012
6.....	0	0	0	0	0	1.0000	0	0	0	0	0	0	0	0	0
7.....	.0324	.0525	.0210	.0694	.0302	.0230	1.0229	.0214	.0217	.0159	.0360	.0263	.0403	.0285	.0291
8.....	.0736	.0438	.0209	.0109	.0206	.0307	.0336	1.1292	.0221	.0213	.0242	.0313	.0143	.0219	.0293
9.....	.0003	.0148	.0002	.0001	.0002	.0005	.0004	.0004	1.0038	.0085	.0009	.0004	.0002	.0006	.0028
10.....	.0057	.0066	.0047	.0023	.0044	.0067	.0074	.0039	.0104	1.0511	.0049	.0062	.0028	.0046	.0057
11.....	.0040	.0034	.0026	.0014	.0069	.0059	.0056	.0148	.0098	.0064	1.0852	.1629	.0069	.0243	.0040
12.....	.0045	.0045	.0039	.0023	.0050	.0057	.0057	.0073	.0063	.0048	.0056	1.0192	.0049	.0057	.0047
13.....	.1244	.1057	.0532	.0303	.0890	.0706	.0813	.0559	.1136	.0306	.1495	.0710	1.2156	.3372	.0742
14.....	.0010	.0009	.0009	.0005	.0010	.0025	.0042	.0037	.0020	.0008	.0034	.0023	.0015	1.0111	.0019
15.....	.0027	.0043	.0072	.0026	.0036	.0736	.0319	.0032	.0026	.0019	.1283	.0207	.0033	.0065	1.3522
16.....	.0030	.0033	.0044	.0030	.0030	.0577	.0380	.0115	.0020	.0013	.0031	.0022	.0028	.0069	.0029
17.....	.0009	.0020	.0020	.0019	.0030	.0089	.0064	.0008	.0008	.0004	.0017	.0010	.0039	.0026	.0021
18.....	.0030	.0065	.0034	.0093	.0070	.0520	.0466	.0063	.0021	.0013	.0069	.0029	.0078	.0051	.0062
19.....	.0033	.0037	.0115	.0087	.0098	.0080	.0052	.0022	.0029	.0013	.0040	.0024	.0057	.0064	.0071
20.....	.0024	.0025	.0031	.0023	.0030	.0119	.0100	.0015	.0016	.0017	.0020	.0025	.0017	.0029	.0024
21.....	.0061	.0066	.0053	.0026	.0051	.0077	.0085	.0041	.0052	.0051	.0055	.0071	.0032	.0051	.0064
22.....	.0022	.0748	.0018	.0010	.0021	.0035	.0032	.0029	.0018	.0019	.0035	.0030	.0019	.0023	.0114
23.....	.0002	.0002	.0002	.0001	.0002	.0006	.0006	.0001	.0002	.0001	.0002	.0004	.0002	.0003	.0002
24.....	.0010	.0011	.0009	.0005	.0010	.0016	.0017	.0008	.0009	.0009	.0010	.0014	.0007	.0010	.0011
25.....	.0525	.0541	.0357	.0202	.0497	.0754	.0705	.0826	.0467	.0392	.0944	.0952	.0753	.0689	.0712
26.....	.0179	.0169	.0135	.0083	.0153	.0237	.0246	.0155	.0156	.0223	.0182	.0369	.0133	.0175	.0172
27.....	.0546	.0414	.0476	.0323	.1495	.0506	.0523	.0457	.0487	.0341	.0996	.0587	.0786	.0671	.0536
28.....	.0778	.0745	.0555	.0255	.0554	.0997	.0941	.1046	.0559	.0735	.1030	.0852	.0507	.0697	.0935
29.....	.0700	.0752	.0586	.0301	.0549	.1214	.1309	.0455	.0562	.0548	.0603	.0767	.0360	.0562	.0693
30.....	.0260	.0212	.0193	.0131	.0299	.0263	.0278	.0173	.0184	.0190	.0202	.0270	.0164	.0193	.0223
31.....	.0211	.0167	.0138	.0081	.0160	.0227	.0208	.0127	.0136	.0124	.0150	.0193	.0098	.0140	.0173
32.....	.1428	.0858	.0792	.1003	.0769	.0993	.1074	.0653	.0697	.0694	.0752	.0978	.0627	.0750	.0823
33.....	.0116	.0110	.0083	.0047	.0114	.0127	.0128	.0076	.0095	.0091	.0093	.0172	.0059	.0087	.0096
34.....	.0101	.0104	.0084	.0043	.0083	.0125	.0133	.0079	.0098	.0095	.0109	.0132	.0059	.0098	.0109
35.....	.0395	.0351	.0423	.0228	.0513	.1091	.0470	.0329	.0382	.0327	.0432	.0657	.0351	.0391	.0403
36.....	.0319	.0380	.0271	.0186	.0309	.0404	.0424	.0254	.0302	.0304	.0321	.0549	.0224	.0327	.0350
37.....	.0345	.0352	.0280	.0135	.0262	.0406	.0449	.0223	.0281	.0275	.0293	.0381	.0167	.0274	.0330
38.....	.0336	.0365	.0302	.0168	.0356	.0418	.0419	.0251	.0284	.0263	.0349	.0412	.0222	.0299	.0370
39.....	.5701	.6115	.4878	.2344	.4560	.7055	.7812	.3843	.4885	.4779	.5097	.6624	.2908	.4767	.5728
Total/1/	2.0531	1.9815	1.6418	1.5102	1.8982	2.1950	2.0947	1.9790	1.7335	1.6396	2.1873	2.1272	2.0766	2.1079	2.3440

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix D identifies the row and column industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-2.1.-- 39-Industry-by-39-Industry Multipliers for Output--Continued
[Dollars]

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1.....	0.0074	0.0047	0.0056	0.0063	0.0068	0.0029	0.0085	0.0071	0.0093	0.0085	0.0053	0.0038	0.0115	0.0090	0.0068
2.....	.0013	.0007	.0008	.0008	.0010	.0007	.0027	.0011	.0031	.0011	.0007	.0006	.0012	.0011	.0009
3.....	0	0	0	0	0	0	0	0	0	0	0	.0003	0	0	0
4.....	.0353	.0286	.0142	.0141	.0182	.0069	.0185	.0228	.0276	.0359	.0100	.1594	.0181	.0207	.0138
5.....	.0546	.0033	.0008	.0010	.0011	.0006	.0011	.0017	.0015	.0017	.0006	.0016	.0008	.0009	.0006
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0376	.0276	.0231	.0193	.0206	.0078	.0216	.0208	.0243	.0621	.0445	.0571	.0264	.0299	.0218
8.....	.0254	.0161	.0203	.0229	.0242	.0100	.0286	.0263	.0241	.0305	.0192	.0126	.0328	.0329	.0256
9.....	.0003	.0002	.0002	.0002	.0002	.0002	.0007	.0006	.0011	.0018	.0001	.0001	.0004	.0002	.0002
10.....	.0055	.0035	.0044	.0048	.0051	.0040	.0067	.0054	.0074	.0079	.0042	.0027	.0062	.0071	.0063
11.....	.0174	.0028	.0035	.0041	.0082	.0023	.0033	.0132	.0156	.0040	.0026	.0019	.0072	.0115	.0075
12.....	.0052	.0035	.0041	.0048	.0051	.0045	.0048	.0073	.0110	.0068	.0042	.0028	.0108	.0163	.0172
13.....	.0995	.0813	.0399	.0386	.0570	.0196	.0550	.0751	.0949	.1112	.0260	.1017	.0494	.0536	.0335
14.....	.0012	.0010	.0017	.0020	.0140	.0038	.0015	.0054	.0061	.0010	.0010	.0006	.0011	.0010	.0007
15.....	.0074	.0032	.0030	.0029	.0044	.0049	.0213	.0044	.0252	.0037	.0022	.0035	.0038	.0032	.0022
16.....	1.0952	.0023	.0023	.0027	.0045	.0070	.0059	.0075	.0031	.0036	.0023	.0026	.0023	.0022	.0016
17.....	.0029	1.0646	.0350	.0217	.0237	.0053	.0150	.0110	.0137	.0025	.0012	.0011	.0006	.0007	.0005
18.....	.0053	.0045	1.0317	.0179	.0056	.0041	.0381	.0056	.0050	.0064	.0029	.0052	.0022	.0024	.0018
19.....	.0050	.0095	.0095	1.0426	.0049	.0036	.0165	.0061	.0046	.0057	.0011	.0041	.0022	.0016	.0012
20.....	.0022	.0028	.0021	.0074	1.0687	.0074	.0053	.0072	.0048	.0033	.0232	.0019	.0025	.0027	.0027
21.....	.0062	.0040	.0052	.0062	.0058	1.0248	.0074	.0061	.0057	.0076	.0047	.0031	.0071	.0082	.0059
22.....	.0035	.0021	.0021	.0035	.0022	.0016	1.0328	.0022	.0024	.0217	.0015	.0020	.0025	.0025	.0021
23.....	.0002	.0002	.0002	.0004	.0004	.0003	.0005	1.0018	.0002	.0003	.0002	.0002	.0002	.0002	.0002
24.....	.0011	.0007	.0009	.0010	.0011	.0006	.0012	.0013	1.0196	.0016	.0009	.0006	.0015	.0017	.0015
25.....	.1389	.0685	.0483	.0450	.0483	.0253	.0518	.0495	.0646	1.3306	.0315	.0502	.0697	.0527	.0578
26.....	.0198	.0128	.0164	.0211	.0194	.0090	.0195	.0221	.0300	.0288	1.0271	.0119	.0365	.0376	.0415
27.....	.0932	.0820	.0405	.0419	.0425	.0192	.0485	.0457	.0466	.0617	.0334	1.2993	.0543	.0700	.0524
28.....	.0717	.0864	.0736	.0807	.0829	.0570	.0744	.0748	.0901	.0604	.0307	.0333	1.0560	.0501	.0378
29.....	.0685	.0426	.0529	.0595	.0619	.0300	.0743	.0657	.0607	.0840	.0516	.0355	.0785	1.0890	.0640
30.....	.0241	.0155	.0186	.0197	.0224	.0093	.0241	.0206	.0239	.0350	.0186	.0159	.0284	.0293	1.0801
31.....	.0168	.0126	.0138	.0138	.0144	.0066	.0169	.0153	.0150	.0290	.0119	.0092	.0213	.0248	.0158
32.....	.0836	.0536	.0650	.0735	.0938	.0318	.0974	.0814	.0842	.1059	.0723	.0533	.1043	.1419	.0909
33.....	.0097	.0067	.0104	.0092	.0121	.0040	.0147	.0107	.0112	.0119	.0142	.0054	.0157	.0134	.0112
34.....	.0113	.0072	.0090	.0099	.0102	.0041	.0116	.0106	.0102	.0128	.0094	.0059	.0120	.0148	.0105
35.....	.0521	.0322	.0382	.0460	.0448	.0170	.0455	.0452	.0464	.0653	.0345	.0234	.0797	.0657	.0822
36.....	.0375	.0230	.0303	.0342	.0362	.0140	.0420	.0394	.0370	.0424	.0274	.0177	.0636	.0442	.0434
37.....	.0324	.0209	.0262	.0296	.0310	.0131	.0371	.0325	.0301	.0397	.0251	.0164	.0381	.0439	.0319
38.....	.0372	.0222	.0270	.0287	.0298	.0138	.0350	.0400	.0320	.0556	.0246	.0222	.0524	.0466	.0361
39.....	.5631	.3628	.4559	.5145	.5394	.2272	.6447	.5654	.5237	.6894	.4361	.2844	.6616	.7628	.5553
Total/1/	2.1168	1.7535	1.6810	1.7379	1.8323	1.3772	1.8895	1.7935	1.8923	2.2919	1.5708	1.9690	1.9016	1.9332	1.8102

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix D identifies the row and column industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-2.1.-- 39-Industry-by-39-Industry Multipliers for Output--Continued
[Dollars]

	31	32	33	34	35	36	37	38	39
1.....	0.0094	0.0060	0.0152	0.0083	0.0090	0.0376	0.0122	0.0104	0.0146
2.....	.0011	.0004	.0011	.0010	.0011	.0071	.0013	.0013	.0016
3.....	0	0	0	0	0	0	0	0	0
4.....	.0159	.0050	.0203	.0198	.0160	.0166	.0252	.0230	.0207
5.....	.0007	.0007	.0010	.0012	.0007	.0008	.0015	.0014	.0009
6.....	0	0	0	0	0	0	0	0	0
7.....	.0226	.0829	.0528	.0237	.0238	.0253	.0355	.0696	.0265
8.....	.0353	.0065	.0299	.0306	.0338	.1687	.0454	.0353	.0555
9.....	.0002	.0001	.0006	.0006	.0002	.0003	.0003	.0003	.0003
10.....	.0075	.0013	.0073	.0107	.0069	.0055	.0092	.0067	.0121
11.....	.0040	.0012	.0047	.0063	.0046	.0081	.0049	.0085	.0046
12.....	.0087	.0028	.0107	.0087	.0089	.0081	.0070	.0141	.0073
13.....	.0450	.0130	.0466	.0516	.0448	.0420	.0741	.0570	.0578
14.....	.0008	.0005	.0019	.0017	.0011	.0025	.0027	.0012	.0011
15.....	.0021	.0028	.0041	.0027	.0022	.0026	.0027	.0041	.0028
16.....	.0019	.0032	.0043	.0080	.0020	.0038	.0030	.0059	.0026
17.....	.0006	.0006	.0008	.0008	.0007	.0006	.0008	.0011	.0007
18.....	.0019	.0039	.0033	.0023	.0023	.0027	.0028	.0051	.0023
19.....	.0013	.0006	.0015	.0028	.0045	.0032	.0017	.0036	.0015
20.....	.0027	.0011	.0026	.0042	.0028	.0024	.0031	.0046	.0033
21.....	.0087	.0015	.0063	.0075	.0080	.0062	.0095	.0091	.0142
22.....	.0026	.0005	.0035	.0022	.0025	.0026	.0028	.0028	.0036
23.....	.0002	.0001	.0002	.0004	.0003	.0002	.0011	.0003	.0003
24.....	.0016	.0003	.0024	.0086	.0016	.0014	.0017	.0022	.0020
25.....	.0568	.0115	.0467	.0444	.0563	.0599	.0569	.0676	.0553
26.....	.0393	.0071	.0345	.0278	.0354	.0233	.0300	.0329	.0283
27.....	.0469	.0159	.0821	.0662	.0475	.0592	.0692	.0798	.0658
28.....	.0466	.0133	.0469	.0681	.0516	.1042	.0657	.0837	.0675
29.....	.0929	.0207	.0696	.0809	.0862	.0675	.1024	.0953	.1503
30.....	.0414	.0164	.0305	.0253	.0266	.0268	.0280	.0241	.0352
31.....	1.3254	.0177	.0229	.0195	.0211	.0174	.0270	.0193	.0294
32.....	.1291	1.0631	.1107	.1157	.1166	.1016	.1528	.1199	.1698
33.....	.0190	.0026	1.0358	.0116	.0186	.0127	.0144	.0140	.0191
34.....	.0146	.0025	.0197	1.0237	.0142	.0148	.0176	.0142	.0212
35.....	.0597	.0224	.0695	.0498	1.0767	.0529	.0680	.0570	.0390
36.....	.0487	.0100	.0404	.0428	.0529	1.0341	.0545	.0450	.0652
37.....	.0530	.0080	.0347	.0401	.0429	.0334	1.0742	.0390	.0766
38.....	.0435	.0094	.0424	.0465	.0453	.0333	.0481	1.0443	.0607
39.....	.8117	.1377	.5852	.6975	.7467	.5801	.8885	.6767	1.3325
Total/1/	2.1913	1.3556	1.9075	1.8661	1.8699	1.9896	2.0575	2.0035	1.1199

1. Each column total is the sum of the entries in rows 1-38; these entries include earnings paid to households employed in industries 1-38. Each column total excludes the entry in row 39; this entry is the sum of earnings paid to households.

NOTE.--Each entry represents the dollar change in output that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix D identifies the row and column industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Louisiana

Table A-2.2.-- 39-Industry-by-39-Industry Multipliers for Earnings
[Dollars]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.....	0.3374	0.0164	0.0018	0.0011	0.0018	0.0036	0.0042	0.0505	0.0059	0.0023	0.0036	0.0028	0.0015	0.0020	0.0175
2.....	.0005	.3283	.0004	.0002	.0003	.0024	.0012	.0035	.0003	.0016	.0042	.0009	.0003	.0004	.0406
3.....	0	0	.3049	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.0036	.0031	.0018	.1051	.0040	.0023	.0026	.0019	.0032	.0011	.0049	.0024	.0293	.0088	.0024
5.....	.0005	.0004	.0003	.0002	.2394	.0013	.0017	.0004	.0004	.0001	.0007	.0003	.0031	.0011	.0003
6.....	0	0	0	0	0	.3448	0	0	0	0	0	0	0	0	0
7.....	.0149	.0242	.0097	.0319	.0139	.0106	.4711	.0098	.0100	.0073	.0166	.0121	.0186	.0131	.0134
8.....	.0087	.0052	.0025	.0013	.0024	.0036	.0040	.1338	.0026	.0025	.0029	.0037	.0017	.0026	.0035
9.....	.0001	.0043	.0001	0	.0001	.0001	.0001	.0001	.2941	.0025	.0003	.0001	.0001	.0002	.0008
10.....	.0016	.0019	.0013	.0006	.0013	.0019	.0021	.0011	.0030	.3006	.0014	.0018	.0008	.0013	.0016
11.....	.0008	.0007	.0006	.0003	.0014	.0012	.0012	.0031	.0021	.0013	.2280	.0342	.0015	.0051	.0008
12.....	.0016	.0016	.0013	.0008	.0017	.0020	.0020	.0025	.0022	.0017	.0019	.3521	.0017	.0020	.0016
13.....	.0096	.0081	.0041	.0023	.0069	.0054	.0063	.0043	.0087	.0024	.0115	.0055	.0936	.0260	.0057
14.....	.0002	.0002	.0002	.0001	.0002	.0006	.0010	.0009	.0005	.0002	.0008	.0005	.0003	.2376	.0004
15.....	.0006	.0009	.0015	.0005	.0007	.0152	.0066	.0007	.0005	.0004	.0266	.0043	.0007	.0014	.2799
16.....	.0008	.0009	.0012	.0008	.0008	.0150	.0099	.0030	.0005	.0003	.0008	.0006	.0007	.0018	.0008
17.....	.0001	.0003	.0003	.0003	.0005	.0015	.0011	.0001	.0001	.0001	.0003	.0002	.0006	.0004	.0003
18.....	.0008	.0017	.0009	.0024	.0018	.0134	.0120	.0016	.0005	.0003	.0018	.0007	.0020	.0013	.0016
19.....	.0010	.0011	.0034	.0026	.0029	.0024	.0015	.0007	.0009	.0004	.0012	.0007	.0017	.0019	.0021
20.....	.0007	.0007	.0009	.0007	.0009	.0036	.0030	.0005	.0005	.0005	.0006	.0008	.0005	.0009	.0007
21.....	.0007	.0008	.0006	.0003	.0006	.0009	.0010	.0005	.0006	.0006	.0006	.0008	.0004	.0006	.0008
22.....	.0008	.0289	.0007	.0004	.0008	.0014	.0013	.0011	.0007	.0007	.0014	.0012	.0007	.0009	.0044
23.....	.0001	.0001	.0001	.0001	.0001	.0002	.0002	0	.0001	0	.0001	.0001	.0001	.0001	.0001
24.....	.0003	.0003	.0002	.0001	.0003	.0004	.0005	.0002	.0003	.0003	.0003	.0004	.0002	.0003	.0003
25.....	.0163	.0168	.0111	.0063	.0154	.0234	.0219	.0256	.0145	.0122	.0293	.0296	.0234	.0214	.0221
26.....	.0047	.0045	.0036	.0022	.0040	.0063	.0065	.0041	.0041	.0059	.0048	.0097	.0035	.0046	.0045
27.....	.0051	.0039	.0045	.0030	.0141	.0048	.0049	.0043	.0046	.0032	.0094	.0055	.0074	.0063	.0051
28.....	.0304	.0291	.0217	.0100	.0217	.0390	.0368	.0409	.0219	.0287	.0403	.0333	.0198	.0273	.0366
29.....	.0348	.0373	.0291	.0149	.0273	.0603	.0650	.0226	.0279	.0272	.0299	.0381	.0179	.0279	.0344
30.....	.0081	.0066	.0060	.0041	.0093	.0082	.0086	.0054	.0057	.0059	.0063	.0084	.0051	.0060	.0069
31.....	.0089	.0070	.0058	.0034	.0067	.0095	.0087	.0053	.0057	.0052	.0063	.0081	.0041	.0059	.0073
32.....	.0041	.0024	.0023	.0029	.0022	.0028	.0031	.0019	.0020	.0020	.0021	.0028	.0018	.0021	.0023
33.....	.0037	.0035	.0027	.0015	.0036	.0041	.0041	.0024	.0030	.0029	.0030	.0055	.0019	.0028	.0031
34.....	.0045	.0046	.0037	.0019	.0037	.0056	.0060	.0035	.0044	.0043	.0049	.0059	.0026	.0044	.0049
35.....	.0192	.0170	.0205	.0111	.0249	.0529	.0228	.0159	.0185	.0158	.0209	.0319	.0170	.0189	.0195
36.....	.0100	.0119	.0084	.0058	.0097	.0126	.0132	.0079	.0094	.0095	.0100	.0171	.0070	.0102	.0109
37.....	.0200	.0204	.0163	.0078	.0152	.0235	.0261	.0130	.0163	.0159	.0170	.0221	.0097	.0159	.0192
38.....	.0128	.0139	.0115	.0064	.0135	.0159	.0159	.0096	.0108	.0100	.0133	.0157	.0084	.0114	.0141
39.....	.0022	.0023	.0019	.0009	.0017	.0027	.0030	.0015	.0019	.0018	.0020	.0025	.0011	.0018	.0022
Total...	.5701	.6115	.4878	.2344	.4560	.7055	.7812	.3843	.4885	.4779	.5097	.6624	.2908	.4767	.5728

NOTE.--Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix D identifies the row and coluan industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-2.2.-- 39-Industry-by-39-Industry Multipliers for Earnings--Continued
[Dollars]

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1.....	0.0022	0.0014	0.0017	0.0019	0.0020	0.0009	0.0026	0.0022	0.0028	0.0026	0.0016	0.0012	0.0035	0.0027	0.0021
2.....	.0004	.0002	.0003	.0003	.0003	.0002	.0009	.0003	.0010	.0004	.0002	.0002	.0004	.0004	.0003
3.....	0	0	0	0	0	0	0	0	0	0	0	.0001	0	0	0
4.....	.0036	.0029	.0014	.0014	.0018	.0007	.0019	.0023	.0028	.0036	.0010	.0161	.0018	.0021	.0014
5.....	.0125	.0007	.0002	.0002	.0003	.0001	.0002	.0004	.0003	.0004	.0001	.0004	.0002	.0002	.0001
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.0173	.0127	.0106	.0089	.0095	.0036	.0100	.0096	.0112	.0286	.0205	.0263	.0121	.0137	.0100
8.....	.0030	.0019	.0024	.0027	.0029	.0012	.0034	.0031	.0029	.0036	.0023	.0015	.0039	.0039	.0030
9.....	.0001	.0001	.0001	.0001	.0001	0	.0002	.0002	.0003	.0005	0	0	.0001	.0001	.0001
10.....	.0016	.0010	.0013	.0014	.0015	.0011	.0019	.0015	.0021	.0023	.0012	.0008	.0018	.0020	.0018
11.....	.0037	.0006	.0007	.0009	.0017	.0005	.0007	.0028	.0033	.0009	.0005	.0004	.0015	.0024	.0016
12.....	.0018	.0012	.0014	.0017	.0018	.0015	.0017	.0025	.0038	.0023	.0015	.0010	.0037	.0056	.0060
13.....	.0077	.0063	.0031	.0030	.0044	.0015	.0042	.0058	.0073	.0086	.0020	.0078	.0038	.0041	.0026
14.....	.0003	.0002	.0004	.0005	.0033	.0009	.0003	.0013	.0014	.0002	.0002	.0001	.0003	.0002	.0002
15.....	.0015	.0007	.0006	.0006	.0009	.0010	.0044	.0009	.0052	.0008	.0005	.0007	.0008	.0007	.0005
16.....	.2845	.0006	.0006	.0007	.0012	.0018	.0015	.0019	.0008	.0009	.0006	.0007	.0006	.0006	.0004
17.....	.0005	.1768	.0058	.0036	.0039	.0009	.0025	.0018	.0023	.0004	.0002	.0002	.0001	.0001	.0001
18.....	.0014	.0011	.2658	.0046	.0014	.0010	.0098	.0015	.0013	.0017	.0007	.0013	.0006	.0006	.0005
19.....	.0015	.0028	.0028	.3084	.0015	.0011	.0049	.0018	.0014	.0017	.0003	.0012	.0007	.0005	.0004
20.....	.0007	.0009	.0006	.0022	.3232	.0022	.0016	.0022	.0015	.0010	.0070	.0006	.0008	.0008	.0008
21.....	.0007	.0005	.0006	.0007	.0007	.1207	.0009	.0007	.0007	.0009	.0006	.0004	.0008	.0010	.0007
22.....	.0014	.0008	.0008	.0013	.0008	.0006	.3991	.0008	.0009	.0084	.0006	.0008	.0010	.0009	.0008
23.....	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.3403	.0001	.0001	.0001	.0001	.0001	.0001	.0001
24.....	.0003	.0002	.0003	.0003	.0003	.0002	.0003	.0004	.2826	.0004	.0003	.0002	.0004	.0005	.0004
25.....	.0431	.0213	.0150	.0140	.0150	.0078	.0161	.0154	.0200	.4131	.0098	.0156	.0216	.0164	.0180
26.....	.0052	.0034	.0043	.0056	.0051	.0024	.0051	.0058	.0079	.0076	.2711	.0031	.0096	.0099	.0109
27.....	.0088	.0077	.0038	.0039	.0040	.0018	.0046	.0043	.0044	.0058	.0031	.1225	.0051	.0066	.0049
28.....	.0280	.0338	.0288	.0316	.0324	.0223	.0291	.0292	.0353	.0236	.0120	.0130	.4130	.0196	.0148
29.....	.0340	.0212	.0263	.0295	.0307	.0149	.0369	.0326	.0302	.0417	.0256	.0176	.0390	.5409	.0318
30.....	.0075	.0048	.0058	.0061	.0070	.0029	.0075	.0064	.0074	.0109	.0058	.0049	.0088	.0091	.3360
31.....	.0071	.0053	.0058	.0058	.0060	.0028	.0071	.0064	.0063	.0122	.0050	.0039	.0089	.0104	.0066
32.....	.0024	.0015	.0019	.0021	.0027	.0009	.0028	.0023	.0024	.0030	.0021	.0015	.0030	.0040	.0026
33.....	.0031	.0022	.0033	.0030	.0039	.0013	.0047	.0034	.0036	.0038	.0046	.0017	.0050	.0043	.0036
34.....	.0051	.0032	.0040	.0044	.0046	.0018	.0052	.0048	.0046	.0057	.0042	.0026	.0054	.0066	.0047
35.....	.0253	.0156	.0185	.0223	.0217	.0083	.0221	.0219	.0225	.0317	.0167	.0114	.0387	.0319	.0399
36.....	.0117	.0072	.0095	.0107	.0113	.0044	.0131	.0123	.0115	.0132	.0085	.0055	.0199	.0138	.0136
37.....	.0188	.0121	.0152	.0172	.0180	.0076	.0215	.0189	.0175	.0230	.0146	.0095	.0221	.0255	.0185
38.....	.0142	.0084	.0103	.0109	.0113	.0052	.0133	.0152	.0122	.0212	.0094	.0084	.0200	.0177	.0137
39.....	.0022	.0014	.0017	.0020	.0021	.0009	.0025	.0022	.0020	.0026	.0017	.0011	.0025	.0029	.0021
Total...	.5631	.3628	.4559	.5145	.5394	.2272	.6447	.5654	.5237	.6894	.4361	.2844	.6616	.7628	.5553

NOTE.--Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix D identifies the row and column industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-2.2.-- 39-Industry-by-39-Industry Multipliers for Earnings--Continued
[Dollars]

	31	32	33	34	35	36	37	38	39
1.....	0.0028	0.0018	0.0046	0.0025	0.0027	0.0113	0.0037	0.0031	0.0044
2.....	.0003	.0001	.0004	.0003	.0003	.0023	.0004	.0004	.0005
3.....	0	0	0	0	0	0	0	0	0
4.....	.0016	.0005	.0021	.0020	.0016	.0017	.0026	.0023	.0021
5.....	.0002	.0002	.0002	.0003	.0002	.0002	.0003	.0003	.0002
6.....	0	0	0	0	0	0	0	0	0
7.....	.0104	.0382	.0243	.0109	.0110	.0117	.0164	.0321	.0122
8.....	.0042	.0008	.0035	.0036	.0040	.0200	.0054	.0042	.0066
9.....	.0001	0	.0002	.0002	.0001	.0001	.0001	.0001	.0001
10.....	.0021	.0004	.0021	.0031	.0020	.0016	.0026	.0019	.0034
11.....	.0008	.0002	.0010	.0013	.0010	.0017	.0010	.0018	.0010
12.....	.0030	.0010	.0037	.0030	.0031	.0028	.0024	.0049	.0025
13.....	.0035	.0010	.0036	.0040	.0035	.0032	.0057	.0044	.0045
14.....	.0002	.0001	.0004	.0004	.0003	.0006	.0006	.0003	.0003
15.....	.0004	.0006	.0009	.0006	.0004	.0005	.0006	.0009	.0006
16.....	.0005	.0008	.0011	.0021	.0005	.0010	.0008	.0015	.0007
17.....	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0001
18.....	.0005	.0010	.0009	.0006	.0006	.0007	.0007	.0013	.0006
19.....	.0004	.0002	.0004	.0008	.0013	.0009	.0005	.0011	.0005
20.....	.0008	.0003	.0008	.0013	.0008	.0007	.0010	.0014	.0010
21.....	.0010	.0002	.0007	.0009	.0009	.0007	.0011	.0011	.0017
22.....	.0010	.0002	.0014	.0009	.0010	.0010	.0011	.0011	.0014
23.....	.0001	0	.0001	.0001	.0001	.0001	.0004	.0001	.0001
24.....	.0005	.0001	.0007	.0024	.0004	.0004	.0005	.0006	.0006
25.....	.0176	.0036	.0145	.0138	.0175	.0186	.0177	.0210	.0172
26.....	.0104	.0019	.0091	.0073	.0093	.0061	.0079	.0087	.0075
27.....	.0044	.0015	.0077	.0062	.0045	.0056	.0065	.0075	.0062
28.....	.0182	.0052	.0183	.0266	.0202	.0407	.0257	.0327	.0264
29.....	.0462	.0103	.0346	.0402	.0428	.0335	.0509	.0473	.0746
30.....	.0129	.0051	.0095	.0079	.0083	.0083	.0087	.0075	.0110
31.....	.5567	.0074	.0096	.0082	.0089	.0073	.0113	.0081	.0124
32.....	.0037	.0303	.0032	.0033	.0033	.0029	.0044	.0034	.0048
33.....	.0061	.0008	.3320	.0037	.0060	.0041	.0046	.0045	.0061
34.....	.0065	.0011	.0088	.4578	.0064	.0066	.0079	.0064	.0095
35.....	.0290	.0108	.0337	.0242	.5221	.0256	.0330	.0276	.0189
36.....	.0152	.0031	.0126	.0134	.0165	.3230	.0170	.0141	.0204
37.....	.0307	.0046	.0201	.0233	.0249	.0194	.6232	.0226	.0444
38.....	.0166	.0036	.0161	.0177	.0173	.0127	.0183	.3977	.0231
39.....	.0031	.0005	.0022	.0027	.0029	.0022	.0034	.0026	.0051
Total...	.8117	.1377	.5852	.6975	.7467	.5801	.8885	.6767	.3325

NOTE.--Each entry represents the dollar change in earnings that occurs in the row industry for each additional dollar of output delivered to final demand by the column industry. Appendix D identifies the row and column industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-2.3.-- 39-Industry-by-39-Industry Multipliers for Employment
(Number of jobs)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.....	41.0	2.0	0.2	0.1	0.2	0.4	0.5	6.1	0.7	0.3	0.4	0.3	0.2	0.2	2.1
2.....	.1	39.9	0	0	0	.3	.1	.4	0	.2	.5	.1	0	0	4.9
3.....	0	0	4.7	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.1	.1	.1	3.2	.1	.1	.1	.1	.1	0	.1	.1	.9	.3	.1
5.....	0	0	0	0	9.6	.1	.1	0	0	0	0	0	.1	0	0
6.....	0	0	0	0	0	15.9	0	0	0	0	0	0	0	0	0
7.....	.7	1.1	.4	1.5	.6	.5	21.7	.5	.5	.3	.8	.6	.9	.6	.6
8.....	.4	.3	.1	.1	.1	.2	.2	6.8	.1	.1	.1	.2	.1	.1	.2
9.....	0	.3	0	0	0	0	0	0	22.3	.2	0	0	0	0	.1
10.....	.1	.2	.1	.1	.1	.2	.2	.1	.3	27.6	.1	.2	.1	.1	.1
11.....	0	0	0	0	0	0	0	.1	.1	0	6.9	1.0	0	.2	0
12.....	.1	.1	.1	0	.1	.1	.1	.1	.1	.1	.1	20.9	.1	.1	.1
13.....	.2	.2	.1	.1	.2	.1	.2	.1	.2	.1	.3	.1	2.3	.6	.1
14.....	0	0	0	0	0	0	0	0	0	0	0	0	0	10.5	0
15.....	0	.1	.1	0	0	.9	.4	0	0	0	1.6	.3	0	.1	16.4
16.....	0	0	.1	0	0	.7	.4	.1	0	0	0	0	0	.1	0
17.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.....	0	.1	0	.1	.1	.5	.5	.1	0	0	.1	0	.1	.1	.1
19.....	0	0	.1	.1	.1	.1	.1	0	0	0	0	0	.1	.1	.1
20.....	0	0	0	0	0	.1	.1	0	0	0	0	0	0	0	0
21.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.....	0	1.0	0	0	0	0	0	0	0	0	0	0	0	0	.2
23.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25.....	.7	.7	.5	.3	.7	1.0	.9	1.1	.6	.5	1.2	1.2	1.0	.9	.9
26.....	.2	.1	.1	.1	.1	.2	.2	.1	.1	.2	.2	.3	.1	.2	.1
27.....	.2	.1	.1	.1	.4	.1	.2	.1	.1	.1	.3	.2	.2	.2	.2
28.....	1.4	1.3	1.0	.4	1.0	1.8	1.7	1.8	1.0	1.3	1.8	1.5	.9	1.2	1.6
29.....	2.7	2.9	2.3	1.2	2.1	4.8	5.1	1.8	2.2	2.1	2.4	3.0	1.4	2.2	2.7
30.....	.4	.3	.3	.2	.4	.4	.4	.3	.3	.3	.3	.4	.2	.3	.3
31.....	.4	.3	.3	.2	.3	.4	.4	.2	.3	.2	.3	.4	.2	.3	.3
32.....	.6	.4	.3	.4	.3	.4	.5	.3	.3	.3	.3	.4	.3	.3	.4
33.....	.4	.4	.3	.2	.4	.4	.4	.3	.3	.3	.3	.6	.2	.3	.3
34.....	.5	.5	.4	.2	.4	.6	.6	.4	.5	.4	.5	.6	.3	.5	.5
35.....	1.2	1.1	1.3	.7	1.6	3.4	1.5	1.0	1.2	1.0	1.3	2.0	1.1	1.2	1.2
36.....	1.4	1.7	1.2	.8	1.4	1.8	1.9	1.1	1.4	1.4	1.4	2.5	1.0	1.5	1.6
37.....	.9	1.0	.8	.4	.7	1.1	1.2	.6	.8	.8	.8	1.0	.5	.8	.9
38.....	.7	.7	.6	.3	.7	.8	.8	.5	.6	.5	.7	.8	.4	.6	.7
39.....	.6	.7	.5	.3	.5	.8	.9	.4	.5	.5	.6	.7	.3	.5	.6
Total...	55.3	57.8	16.4	11.1	22.7	38.4	41.6	24.8	34.8	39.1	23.8	39.8	13.1	24.1	37.8

NOTE.--Each entry represents the change in number of jobs that occurs in the row industry for each additional 1 million dollars of output delivered to final demand by the column industry. Appendix D identifies the row and column industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-2.3.-- 39-Industry-by-39-Industry Multipliers for Employment--Continued
[Number of jobs]

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1.....	0.3	0.2	0.2	0.2	0.2	0.1	0.3	0.3	0.3	0.3	0.2	0.1	0.4	0.3	0.3
2.....	.1	0	0	0	0	0	.1	0	.1	0	0	0	0	0	0
3.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.....	.1	.1	0	0	.1	0	.1	.1	.1	.1	0	.5	.1	.1	0
5.....	.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.....	.8	.6	.5	.4	.4	.2	.5	.4	.5	1.3	.9	1.2	.6	.6	.5
8.....	.2	.1	.1	.1	.1	.1	.2	.2	.1	.2	.1	.1	.2	.2	.2
9.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.....	.1	.1	.1	.1	.1	.1	.2	.1	.2	.2	.1	.1	.2	.2	.2
11.....	.1	0	0	0	.1	0	0	.1	.1	0	0	0	0	.1	0
12.....	.1	.1	.1	.1	.1	.1	.1	.1	.2	.1	.1	.1	.2	.3	.4
13.....	.2	.2	.1	.1	.1	0	.1	.1	.2	.2	0	.2	.1	.1	.1
14.....	0	0	0	0	.1	0	0	.1	.1	0	0	0	0	0	0
15.....	.1	0	0	0	.1	.1	.3	.1	.3	0	0	0	0	0	0
16.....	12.4	0	0	0	.1	.1	.1	.1	0	0	0	0	0	0	0
17.....	0	5.5	.2	.1	.1	0	.1	.1	.1	0	0	0	0	0	0
18.....	.1	0	10.6	.2	.1	0	.4	.1	.1	.1	0	.1	0	0	0
19.....	.1	.1	.1	11.9	.1	0	.2	.1	.1	.1	0	0	0	0	0
20.....	0	0	0	.1	13.1	.1	.1	.1	.1	0	.3	0	0	0	0
21.....	0	0	0	0	0	4.3	0	0	0	0	0	0	0	0	0
22.....	0	0	0	0	0	0	14.1	0	0	.3	0	0	0	0	0
23.....	0	0	0	0	0	0	0	14.9	0	0	0	0	0	0	0
24.....	0	0	0	0	0	0	0	0	24.5	0	0	0	0	0	0
25.....	1.8	.9	.6	.6	.6	.3	.7	.6	.8	17.4	.4	.7	.9	.7	.8
26.....	.2	.1	.1	.2	.2	.1	.2	.2	.3	.2	8.9	.1	.3	.3	.4
27.....	.3	.2	.1	.1	.1	.1	.1	.1	.1	.2	.1	3.8	.2	.2	.2
28.....	1.3	1.5	1.3	1.4	1.5	1.0	1.3	1.3	1.6	1.1	.5	.6	18.6	.9	.7
29.....	2.7	1.7	2.1	2.3	2.4	1.2	2.9	2.6	2.4	3.3	2.0	1.4	3.1	42.6	2.5
30.....	.4	.2	.3	.3	.3	.1	.4	.3	.4	.5	.3	.2	.4	.4	16.2
31.....	.3	.2	.3	.3	.3	.1	.3	.3	.3	.5	.2	.2	.4	.5	.3
32.....	.4	.2	.3	.3	.4	.1	.4	.4	.4	.5	.3	.2	.5	.6	.4
33.....	.3	.2	.4	.3	.4	.1	.5	.4	.4	.4	.5	.2	.5	.5	.4
34.....	.5	.3	.4	.5	.5	.2	.5	.5	.5	.6	.4	.3	.6	.7	.5
35.....	1.6	1.0	1.2	1.4	1.4	.5	1.4	1.4	1.4	2.0	1.1	.7	2.5	2.0	2.5
36.....	1.7	1.0	1.4	1.5	1.6	.6	1.9	1.8	1.7	1.9	1.2	.8	2.9	2.0	2.0
37.....	.9	.6	.7	.8	.9	.4	1.0	.9	.8	1.1	.7	.4	1.0	1.2	.9
38.....	.7	.4	.5	.6	.6	.3	.7	.8	.6	1.1	.5	.4	1.0	.9	.7
39.....	.6	.4	.5	.6	.6	.2	.7	.6	.6	.8	.5	.3	.7	.8	.6
Total...	28.9	16.3	22.5	24.9	26.7	10.7	29.8	29.1	39.3	34.8	19.7	12.9	35.7	56.6	30.7

NOTE.--Each entry represents the change in number of jobs that occurs in the row industry for each additional 1 million dollars of output delivered to final demand by the column industry. Appendix D identifies the row and column industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-2.3.-- 39-Industry-by-39-Industry Multipliers for Employment--Continued
[Number of jobs]

	31	32	33	34	35	36	37	38	39
1.....	0.3	0.2	0.6	0.3	0.3	1.4	0.4	0.4	0.5
2.....	0	0	0	0	0	.3	.1	0	.1
3.....	0	0	0	0	0	0	0	0	0
4.....	0	0	.1	.1	0	.1	.1	.1	.1
5.....	0	0	0	0	0	0	0	0	0
6.....	0	0	0	0	0	0	0	0	0
7.....	.5	1.8	1.1	.5	.5	.5	.8	1.5	.6
8.....	.2	0	.2	.2	.2	1.0	.3	.2	.3
9.....	0	0	0	0	0	0	0	0	0
10.....	.2	0	.2	.3	.2	.1	.2	.2	.3
11.....	0	0	0	0	0	.1	0	.1	0
12.....	.2	.1	.2	.2	.2	.2	.1	.3	.1
13.....	.1	0	.1	.1	.1	.1	.1	.1	.1
14.....	0	0	0	0	0	0	0	0	0
15.....	0	0	.1	0	0	0	0	.1	0
16.....	0	0	0	.1	0	0	0	.1	0
17.....	0	0	0	0	0	0	0	0	0
18.....	0	0	0	0	0	0	0	.1	0
19.....	0	0	0	0	.1	0	0	0	0
20.....	0	0	0	.1	0	0	0	.1	0
21.....	0	0	0	0	0	0	0	0	.1
22.....	0	0	0	0	0	0	0	0	0
23.....	0	0	0	0	0	0	0	0	0
24.....	0	0	.1	.2	0	0	0	.1	0
25.....	.7	.2	.6	.6	.7	.8	.7	.9	.7
26.....	.3	.1	.3	.2	.3	.2	.3	.3	.2
27.....	.1	0	.2	.2	.1	.2	.2	.2	.2
28.....	.8	.2	.8	1.2	.9	1.8	1.2	1.5	1.2
29.....	3.6	.8	2.7	3.2	3.4	2.6	4.0	3.7	5.9
30.....	.6	.2	.5	.4	.4	.4	.4	.4	.5
31.....	24.7	.3	.4	.4	.4	.3	.5	.4	.5
32.....	.6	4.7	.5	.5	.5	.4	.7	.5	.7
33.....	.6	.1	35.4	.4	.6	.4	.5	.5	.7
34.....	.7	.1	.9	48.2	.7	.7	.8	.7	1.0
35.....	1.8	.7	2.2	1.5	33.3	1.6	2.1	1.8	1.2
36.....	2.2	.5	1.8	1.9	2.4	46.6	2.5	2.0	2.9
37.....	1.5	.2	1.0	1.1	1.2	.9	29.5	1.1	2.1
38.....	.8	.2	.8	.9	.9	.7	.9	20.4	1.2
39.....	.9	.2	.6	.8	.8	.6	1.0	.7	1.5
Total...	42.0	10.8	51.6	63.7	48.6	62.4	47.7	38.2	23.1

NOTE.--Each entry represents the change in number of jobs that occurs in the row industry for each additional 1 million dollars of output delivered to final demand by the column industry. Appendix D identifies the row and column industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table A-2.4.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.0531	0.5701	55.3
Forestry and fishery products	1.9815	.6115	57.8
Mining:			
Coal mining	1.6418	.4878	16.4
Crude petroleum and natural gas	1.5102	.2344	11.1
Miscellaneous mining	1.8982	.4560	22.7
Construction:			
New construction	2.1950	.7055	38.4
Maintenance and repair construction	2.0947	.7812	41.6
Manufacturing:			
Food and kindred products and tobacco	1.9790	.3843	24.8
Textile mill products	1.7335	.4885	34.8
Apparel	1.6396	.4779	39.1
Paper and allied products	2.1873	.5097	23.8
Printing and publishing	2.1272	.6624	39.8
Chemicals and petroleum refining	2.0766	.2908	13.1
Rubber and leather products	2.1079	.4767	24.1
Lumber and wood products and furniture	2.3440	.5728	37.8
Stone, clay, and glass products	2.1168	.5631	28.9
Primary metal industries	1.7535	.3628	16.3
Fabricated metal products	1.6810	.4559	22.5
Machinery, except electrical	1.7379	.5145	24.9
Electric and electronic equipment	1.8323	.5394	26.7
Motor vehicles and equipment	1.3772	.2272	10.7
Transportation equipment, except motor vehicles	1.8895	.6447	29.8
Instruments and related products	1.7935	.5654	29.1
Miscellaneous manufacturing industries	1.8923	.5237	39.3
Transportation, communication, and utilities:*			
Transportation	2.2919	.6894	34.8
Communication	1.5708	.4361	19.7
Electric, gas, water, and sanitary services	1.9690	.2844	12.9
Wholesale and retail trade:			
Wholesale trade	1.9016	.6616	35.7
Retail trade	1.9332	.7628	56.6
Finance, insurance, and real estate:			
Finance	1.8102	.5553	30.7
Insurance	2.1913	.8117	42.0
Real estate	1.3556	.1377	10.8
Services:			
Hotels and lodging places and amusements	1.9075	.5852	51.6
Personal services	1.8661	.6975	63.7
Business services	1.8699	.7467	48.6
Eating and drinking places	1.9896	.5801	62.4
Health services	2.0575	.8885	47.7
Miscellaneous services	2.0035	.6767	38.2
Households	1.1199	.3325	23.1

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Appendix B. Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment, for All States and the District of Columbia (51 tables)

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.2749	0.5367	60.5
Forestry and fishery products	1.8415	.5631	67.5
Mining:			
Coal mining	1.9669	.5939	26.6
Crude petroleum and natural gas	1.4502	.2268	12.5
Miscellaneous mining	1.8337	.5318	30.2
Construction:			
New construction	2.4056	.7768	50.6
Maintenance and repair construction	2.2709	.8417	54.1
Manufacturing:			
Food and kindred products and tobacco	2.3424	.4742	38.6
Textile mill products	2.6234	.6053	40.8
Apparel	2.5621	.6933	55.6
Paper and allied products	2.1975	.5428	28.3
Printing and publishing	2.0636	.6377	41.1
Chemicals and petroleum refining	1.8873	.3761	19.3
Rubber and leather products	1.9829	.5034	26.3
Lumber and wood products and furniture	2.3807	.6123	47.1
Stone, clay, and glass products	2.0996	.5914	33.2
Primary metal industries	2.1159	.5327	26.3
Fabricated metal products	2.1863	.5896	32.4
Machinery, except electrical	2.1003	.6158	33.7
Electric and electronic equipment	2.0262	.6194	34.9
Motor vehicles and equipment	2.2467	.5997	29.8
Transportation equipment, except motor vehicles	2.2128	.6544	34.0
Instruments and related products	1.9519	.6024	35.7
Miscellaneous manufacturing industries	2.1206	.5817	39.4
Transportation, communication, and utilities:*			
Transportation	2.0781	.7910	43.7
Communication	1.5428	.4333	20.5
Electric, gas, water, and sanitary services	1.7909	.3428	16.6
Wholesale and retail trade:			
Wholesale trade	1.8256	.6488	39.5
Retail trade	1.8707	.7562	62.0
Finance, insurance, and real estate:			
Finance	1.7724	.5530	33.2
Insurance	1.9767	.6560	36.6
Real estate	1.3347	.1299	11.4
Services:			
Hotels and lodging places and amusements	1.8905	.5812	68.4
Personal services	1.9367	.7443	84.0
Business services	1.8788	.7935	60.2
Eating and drinking places	2.0929	.6055	73.5
Health services	2.0081	.8851	51.2
Miscellaneous services	2.0387	.7085	48.4
Households	1.0858	.3318	25.9

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.6639	0.5920	48.6
Forestry and fishery products	1.5065	.5437	82.2
Mining:			
Coal mining	1.4714	.4175	9.2
Crude petroleum and natural gas	1.3712	.1856	5.0
Miscellaneous mining	1.5142	.3785	12.7
Construction:			
New construction	1.6968	.5386	16.0
Maintenance and repair construction	1.6085	.6123	17.3
Manufacturing:			
Food and kindred products and tobacco	1.6696	.3469	26.7
Textile mill products	1.3383	.3364	18.6
Apparel	1.3476	.3596	22.7
Paper and allied products	1.7708	.3720	11.1
Printing and publishing	1.5767	.5015	21.9
Chemicals and petroleum refining	1.6754	.1853	5.1
Rubber and leather products	1.3487	.3121	12.5
Lumber and wood products and furniture	1.4343	.2921	9.5
Stone, clay, and glass products	1.6650	.4180	12.0
Primary metal industries	1.5023	.3473	14.1
Fabricated metal products	1.4283	.3887	15.2
Machinery, except electrical	1.4390	.4439	13.7
Electric and electronic equipment	1.4026	.3689	12.0
Motor vehicles and equipment	1.3438	.3516	13.0
Transportation equipment, except motor vehicles	1.4169	.4696	17.4
Instruments and related products	1.4700	.4938	6.3
Miscellaneous manufacturing industries	1.4638	.3799	21.4
Transportation, communication, and utilities:*			
Transportation	1.8119	.6382	20.5
Communication	1.3822	.3597	9.8
Electric, gas, water, and sanitary services	1.5966	.2297	6.0
Wholesale and retail trade:			
Wholesale trade	1.6297	.5546	19.6
Retail trade	1.6455	.6416	30.4
Finance, insurance, and real estate:			
Finance	1.5857	.4430	17.3
Insurance	1.8369	.7136	24.8
Real estate	1.2781	.1098	4.7
Services:			
Hotels and lodging places and amusements	1.6804	.5147	33.2
Personal services	1.5685	.6086	45.9
Business services	1.6524	.6777	28.3
Eating and drinking places	1.5345	.4429	29.0
Health services	1.6878	.7407	26.1
Miscellaneous services	1.7119	.6222	24.1
Households	.7696	.2300	11.0

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.9519	0.5404	42.8
Forestry and fishery products	1.7074	.3251	23.9
Mining:			
Coal mining	1.6881	.5203	20.4
Crude petroleum and natural gas	1.4392	.2243	11.9
Miscellaneous mining	1.8047	.5399	24.7
Construction:			
New construction	2.0757	.6942	40.2
Maintenance and repair construction	1.9755	.7707	43.7
Manufacturing:			
Food and kindred products and tobacco	1.9796	.4124	26.6
Textile mill products	1.5556	.3749	25.6
Apparel	1.5290	.4488	36.8
Paper and allied products	1.5685	.4016	19.8
Printing and publishing	1.7983	.5987	36.9
Chemicals and petroleum refining	1.5937	.3246	17.4
Rubber and leather products	1.5218	.4148	25.3
Lumber and wood products and furniture	1.7511	.4829	29.9
Stone, clay, and glass products	2.0131	.5417	27.9
Primary metal industries	2.4456	.4357	20.3
Fabricated metal products	1.6864	.4542	25.7
Machinery, except electrical	1.9348	.5901	28.2
Electric and electronic equipment	1.9140	.6506	32.5
Motor vehicles and equipment	1.4032	.2672	12.1
Transportation equipment, except motor vehicles	1.9227	.6384	28.9
Instruments and related products	1.8096	.6077	30.6
Miscellaneous manufacturing industries	1.7360	.4980	32.2
Transportation, communication, and utilities:*			
Transportation	1.8346	.7524	39.2
Communication	1.5322	.4375	20.2
Electric, gas, water, and sanitary services	1.4808	.2729	12.5
Wholesale and retail trade:			
Wholesale trade	1.8068	.6574	37.2
Retail trade	1.8522	.7606	55.2
Finance, insurance, and real estate:			
Finance	1.8304	.5864	32.1
Insurance	2.0862	.7377	40.9
Real estate	1.3801	.1531	13.7
Services:			
Hotels and lodging places and amusements	1.8655	.6066	56.9
Personal services	1.8063	.7356	74.1
Business services	1.8479	.7842	56.9
Eating and drinking places	1.8121	.5523	67.1
Health services	1.9665	.8922	47.7
Miscellaneous services	1.8588	.6601	43.3
Households	1.0060	.3232	23.4

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.4216	0.5638	60.5
Forestry and fishery products	1.9473	.3568	34.9
Mining:			
Coal mining	1.6690	.4935	25.3
Crude petroleum and natural gas	1.4924	.2303	12.8
Miscellaneous mining	1.8569	.5108	30.8
Construction:			
New construction	2.3249	.7307	49.6
Maintenance and repair construction	2.2726	.8248	56.0
Manufacturing:			
Food and kindred products and tobacco	2.6577	.5204	44.4
Textile mill products	1.9040	.4042	26.5
Apparel	1.9963	.5532	46.1
Paper and allied products	2.1404	.5019	26.3
Printing and publishing	2.1274	.6306	42.0
Chemicals and petroleum refining	1.9624	.3365	17.8
Rubber and leather products	1.8613	.5035	31.7
Lumber and wood products and furniture	2.3754	.6104	41.8
Stone, clay, and glass products	2.1206	.5514	32.2
Primary metal industries	2.0688	.4287	22.8
Fabricated metal products	1.9220	.5112	29.9
Machinery, except electrical	1.9768	.5390	32.0
Electric and electronic equipment	2.0701	.5710	33.8
Motor vehicles and equipment	1.9474	.5138	29.5
Transportation equipment, except motor vehicles	1.9995	.5901	34.2
Instruments and related products	1.9694	.5607	34.5
Miscellaneous manufacturing industries	2.0633	.5635	40.0
Transportation, communication, and utilities:*			
Transportation	2.0739	.7935	44.0
Communication	1.5875	.4369	21.8
Electric, gas, water, and sanitary services	1.7476	.2685	14.0
Wholesale and retail trade:			
Wholesale trade	1.8798	.6520	40.6
Retail trade	1.9327	.7592	61.0
Finance, insurance, and real estate:			
Finance	1.8458	.5969	34.4
Insurance	2.1259	.7814	43.5
Real estate	1.3479	.1331	11.9
Services:			
Hotels and lodging places and amusements	1.9286	.5818	71.7
Personal services	1.9831	.7278	77.4
Business services	1.9146	.7864	62.8
Eating and drinking places	2.1856	.6134	73.6
Health services	2.0670	.8846	52.3
Miscellaneous services	2.0704	.7054	49.4
Households	1.1822	.3462	27.2

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.1471	0.6557	39.5
Forestry and fishery products	2.1425	.7340	43.4
Mining:			
Coal mining	1.7567	.5293	12.5
Crude petroleum and natural gas	1.5812	.2571	11.3
Miscellaneous mining	1.9134	.5163	23.9
Construction:			
New construction	2.4472	.7925	38.6
Maintenance and repair construction	2.3830	.8723	41.7
Manufacturing:			
Food and kindred products and tobacco	2.1909	.4799	24.2
Textile mill products	1.6614	.3764	21.6
Apparel	1.8283	.5287	36.9
Paper and allied products	1.8296	.4416	19.9
Printing and publishing	2.0778	.6508	33.6
Chemicals and petroleum refining	1.8144	.2552	11.3
Rubber and leather products	1.8967	.4909	26.2
Lumber and wood products and furniture	2.0966	.5772	30.8
Stone, clay, and glass products	2.1692	.6109	28.4
Primary metal industries	1.8178	.4382	19.0
Fabricated metal products	1.9656	.5432	25.4
Machinery, except electrical	2.1745	.6611	29.6
Electric and electronic equipment	2.3065	.7698	33.9
Motor vehicles and equipment	1.7613	.3962	16.6
Transportation equipment, except motor vehicles	2.3486	.7594	31.4
Instruments and related products	2.0868	.6504	29.7
Miscellaneous manufacturing industries	2.1152	.5899	32.5
Transportation, communication, and utilities:*			
Transportation	2.2775	.8039	36.8
Communication	1.7440	.4928	20.5
Electric, gas, water, and sanitary services	1.9533	.2831	11.7
Wholesale and retail trade:			
Wholesale trade	2.0817	.7258	35.7
Retail trade	2.1194	.8265	51.7
Finance, insurance, and real estate:			
Finance	2.1112	.6659	32.4
Insurance	2.4181	.8578	40.7
Real estate	1.4478	.1686	12.2
Services:			
Hotels and lodging places and amusements	2.3362	.6951	43.1
Personal services	2.0750	.7729	62.7
Business services	2.1527	.8657	49.8
Eating and drinking places	2.2730	.6673	64.0
Health services	2.3069	.9722	46.1
Miscellaneous services	2.2066	.7556	41.2
Households	1.3334	.4014	23.9

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.6356	0.5614	38.4
Forestry and fishery products	1.7464	.3180	20.9
Mining:			
Coal mining	2.0064	.6076	24.3
Crude petroleum and natural gas	1.5739	.2537	11.8
Miscellaneous mining	1.9603	.5191	23.2
Construction:			
New construction	2.2042	.7288	39.6
Maintenance and repair construction	2.1308	.8067	42.9
Manufacturing:			
Food and kindred products and tobacco	2.4899	.4887	27.7
Textile mill products	1.5913	.3817	23.5
Apparel	1.6421	.4789	32.6
Paper and allied products	1.6124	.4170	20.5
Printing and publishing	1.9875	.6256	35.8
Chemicals and petroleum refining	2.0142	.3767	17.5
Rubber and leather products	1.8476	.5484	27.3
Lumber and wood products and furniture	1.8257	.5070	31.2
Stone, clay, and glass products	2.1060	.5896	28.1
Primary metal industries	2.0404	.5420	23.3
Fabricated metal products	1.8565	.4847	24.0
Machinery, except electrical	2.0080	.5979	28.6
Electric and electronic equipment	1.9810	.6273	31.6
Motor vehicles and equipment	1.6287	.3778	16.2
Transportation equipment, except motor vehicles	1.8791	.6195	26.5
Instruments and related products	1.8872	.5345	24.5
Miscellaneous manufacturing industries	1.8527	.5184	34.3
Transportation, communication, and utilities:*			
Transportation	2.0412	.7626	35.8
Communication	1.6509	.4682	20.6
Electric, gas, water, and sanitary services	1.8367	.3187	14.0
Wholesale and retail trade:			
Wholesale trade	1.9841	.7000	36.5
Retail trade	2.0304	.8021	54.6
Finance, insurance, and real estate:			
Finance	2.0468	.6339	32.9
Insurance	2.2277	.7536	39.0
Real estate	1.4374	.1691	12.4
Services:			
Hotels and lodging places and amusements	2.1061	.6655	59.9
Personal services	1.9750	.7688	79.2
Business services	2.0824	.8636	57.4
Eating and drinking places	2.2017	.6357	68.7
Health services	2.1962	.9418	49.3
Miscellaneous services	2.2003	.6976	38.3
Households	1.2122	.3667	24.3

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.6708	0.5061	43.7
Forestry and fishery products	1.5600	.3668	29.1
Mining:			
Coal mining	1.6434	.5036	17.0
Crude petroleum and natural gas	1.4616	.2330	9.8
Miscellaneous mining	1.7428	.5159	24.5
Construction:			
New construction	2.0999	.6998	34.7
Maintenance and repair construction	2.0957	.8043	39.4
Manufacturing:			
Food and kindred products and tobacco	1.6338	.3238	15.7
Textile mill products	1.8082	.4489	25.1
Apparel	1.8677	.5426	35.6
Paper and allied products	1.9209	.4780	20.3
Printing and publishing	2.1452	.6591	33.8
Chemicals and petroleum refining	2.0022	.4474	19.1
Rubber and leather products	2.0610	.5354	25.5
Lumber and wood products and furniture	1.8494	.5377	30.5
Stone, clay, and glass products	1.9369	.5522	25.6
Primary metal industries	1.8121	.4028	17.5
Fabricated metal products	1.9115	.5455	25.2
Machinery, except electrical	2.0287	.6428	29.1
Electric and electronic equipment	2.0704	.6491	30.5
Motor vehicles and equipment	1.8400	.4689	19.4
Transportation equipment, except motor vehicles	2.1706	.7387	30.6
Instruments and related products	2.0065	.6265	28.4
Miscellaneous manufacturing industries	2.0032	.5859	30.2
Transportation, communication, and utilities:*			
Transportation	1.9089	.7773	39.3
Communication	1.5773	.4508	18.4
Electric, gas, water, and sanitary services	1.4350	.2434	10.3
Wholesale and retail trade:			
Wholesale trade	1.8161	.6565	31.5
Retail trade	1.8679	.7633	55.8
Finance, insurance, and real estate:			
Finance	1.8820	.6266	30.8
Insurance	2.2734	.6682	31.0
Real estate	1.3649	.1435	9.5
Services:			
Hotels and lodging places and amusements	1.9170	.6143	54.7
Personal services	1.8886	.7518	68.0
Business services	1.8854	.8020	47.0
Eating and drinking places	1.8445	.5602	57.8
Health services	2.0587	.9056	47.1
Miscellaneous services	2.0109	.6989	39.6
Households	1.0024	.3153	20.0

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.0414	0.4197	22.5
Forestry and fishery products	1.6175	.4562	24.4
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.3680	.1978	7.6
Miscellaneous mining	1.6407	.3922	19.0
Construction:			
New construction	1.8293	.5734	32.4
Maintenance and repair construction	1.8478	.6782	37.5
Manufacturing:			
Food and kindred products and tobacco	2.3108	.3767	21.2
Textile mill products	1.7920	.3875	21.9
Apparel	1.6497	.4329	34.8
Paper and allied products	1.4862	.2646	13.0
Printing and publishing	1.6381	.5078	29.6
Chemicals and petroleum refining	1.9374	.3979	15.4
Rubber and leather products	2.0301	.4746	21.8
Lumber and wood products and furniture	1.5652	.3858	24.4
Stone, clay, and glass products	1.5912	.3707	20.0
Primary metal industries	1.7251	.4084	18.0
Fabricated metal products	1.7060	.4352	22.5
Machinery, except electrical	1.6735	.5026	24.5
Electric and electronic equipment	1.6073	.4836	24.6
Motor vehicles and equipment	1.3594	.1990	8.4
Transportation equipment, except motor vehicles	1.6172	.5116	21.2
Instruments and related products	1.6416	.4612	20.3
Miscellaneous manufacturing industries	1.7647	.4427	31.9
Transportation, communication, and utilities:*			
Transportation	1.8737	.6680	35.9
Communication	1.4193	.3765	16.4
Electric, gas, water, and sanitary services	1.5566	.2293	9.7
Wholesale and retail trade:			
Wholesale trade	1.6832	.5736	30.3
Retail trade	1.7220	.6734	53.9
Finance, insurance, and real estate:			
Finance	1.6577	.5261	28.2
Insurance	1.6767	.4907	26.0
Real estate	1.3133	.1190	8.4
Services:			
Hotels and lodging places and amusements	1.7235	.4785	49.1
Personal services	1.6736	.6502	70.6
Business services	1.7146	.7217	53.3
Eating and drinking places	1.7371	.4841	58.3
Health services	1.9149	.7991	40.5
Miscellaneous services	1.7375	.5844	39.0
Households	.9109	.2583	18.1

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

District of Columbia

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.1805	0.2456	26.1
Forestry and fishery products	0	0	0
Mining:			
Coal mining	1.1329	.1336	3.1
Crude petroleum and natural gas	1.1814	.0529	1.6
Miscellaneous mining	1.1780	.1252	4.1
Construction:			
New construction	1.2117	.1680	7.9
Maintenance and repair construction	1.1437	.1978	9.2
Manufacturing:			
Food and kindred products and tobacco	1.1459	.1301	4.8
Textile mill products	1.1077	.0863	3.4
Apparel	1.1658	.1245	10.1
Paper and allied products	1.1036	.0911	3.4
Printing and publishing	1.3246	.1757	6.9
Chemicals and petroleum refining	1.0958	.0357	1.0
Rubber and leather products	1.1177	.1088	9.1
Lumber and wood products and furniture	1.1329	.1223	6.7
Stone, clay, and glass products	1.1197	.1007	4.7
Primary metal industries	1.1250	.0728	2.6
Fabricated metal products	1.1333	.1360	5.4
Machinery, except electrical	1.1257	.1208	3.7
Electric and electronic equipment	1.1933	.1471	3.5
Motor vehicles and equipment	1.0617	.0531	1.2
Transportation equipment, except motor vehicles	1.1470	.1539	3.5
Instruments and related products	1.1648	.1409	23.5
Miscellaneous manufacturing industries	1.2367	.1581	9.3
Transportation, communication, and utilities:*			
Transportation	1.2108	.2478	11.9
Communication	1.2170	.1279	3.8
Electric, gas, water, and sanitary services	1.1600	.0585	2.0
Wholesale and retail trade:			
Wholesale trade	1.2673	.1884	7.2
Retail trade	1.2974	.2269	14.2
Finance, insurance, and real estate:			
Finance	1.3984	.1718	6.7
Insurance	1.3179	.1610	6.4
Real estate	1.1634	.0294	1.8
Services:			
Hotels and lodging places and amusements	1.3602	.1777	10.8
Personal services	1.2333	.2184	28.6
Business services	1.2961	.2731	14.8
Eating and drinking places	1.2161	.1471	13.7
Health services	1.2800	.2481	10.2
Miscellaneous services	1.4124	.2260	9.6
Households	.4171	.0472	2.7

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.9249	0.6476	49.4
Forestry and fishery products	1.8071	.6260	47.0
Mining:			
Coal mining	1.5943	.4902	85.9
Crude petroleum and natural gas	1.4600	.2302	11.0
Miscellaneous mining	1.6816	.4305	22.8
Construction:			
New construction	2.1110	.7084	43.3
Maintenance and repair construction	2.0370	.7887	47.7
Manufacturing:			
Food and kindred products and tobacco	1.8699	.4076	24.6
Textile mill products	1.7064	.4154	29.0
Apparel	1.6645	.4896	40.3
Paper and allied products	1.8333	.4380	21.9
Printing and publishing	1.9156	.6253	37.8
Chemicals and petroleum refining	1.7437	.3496	17.9
Rubber and leather products	1.6490	.4639	30.0
Lumber and wood products and furniture	1.8080	.4905	31.9
Stone, clay, and glass products	1.8938	.5375	29.2
Primary metal industries	1.5655	.3761	19.0
Fabricated metal products	1.6118	.4389	23.9
Machinery, except electrical	1.8508	.5677	28.2
Electric and electronic equipment	1.9442	.6687	34.8
Motor vehicles and equipment	1.4801	.3302	15.6
Transportation equipment, except motor vehicles	1.8493	.6082	28.4
Instruments and related products	1.7844	.5756	32.9
Miscellaneous manufacturing industries	1.7675	.5098	36.2
Transportation, communication, and utilities:*			
Transportation	1.9520	.7250	37.9
Communication	1.5782	.4516	20.9
Electric, gas, water, and sanitary services	1.3891	.2409	11.4
Wholesale and retail trade:			
Wholesale trade	1.8731	.6747	37.8
Retail trade	1.9259	.7807	57.6
Finance, insurance, and real estate:			
Finance	1.9185	.5985	33.4
Insurance	2.2217	.8135	44.1
Real estate	1.3983	.1614	12.6
Services:			
Hotels and lodging places and amusements	1.9264	.6219	53.9
Personal services	1.8642	.7361	75.7
Business services	1.9414	.8302	58.4
Eating and drinking places	2.0214	.6066	64.0
Health services	2.0500	.9222	48.4
Miscellaneous services	2.0311	.6418	38.1
Households	1.0894	.3452	24.1

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.2553	0.5647	51.5
Forestry and fishery products	1.7773	.3509	29.8
Mining:			
Coal mining	1.7022	.5119	29.0
Crude petroleum and natural gas	1.5166	.2409	12.5
Miscellaneous mining	1.8428	.5097	27.0
Construction:			
New construction	2.4282	.7764	47.0
Maintenance and repair construction	2.3158	.8493	51.2
Manufacturing:			
Food and kindred products and tobacco	2.2455	.4590	29.2
Textile mill products	2.4364	.5331	32.8
Apparel	2.6775	.7121	53.5
Paper and allied products	2.2895	.5536	27.8
Printing and publishing	2.3191	.7178	41.2
Chemicals and petroleum refining	1.9400	.4152	21.6
Rubber and leather products	1.9708	.5156	29.7
Lumber and wood products and furniture	2.4240	.6093	40.1
Stone, clay, and glass products	2.0834	.5841	31.3
Primary metal industries	1.7974	.4175	20.7
Fabricated metal products	1.9044	.4904	26.6
Machinery, except electrical	1.9194	.5567	30.0
Electric and electronic equipment	2.0098	.5947	31.8
Motor vehicles and equipment	1.8923	.3784	18.1
Transportation equipment, except motor vehicles	2.1004	.6009	28.5
Instruments and related products	2.0356	.6026	33.8
Miscellaneous manufacturing industries	2.1863	.6042	38.0
Transportation, communication, and utilities:*			
Transportation	2.0534	.7339	35.3
Communication	1.6350	.4569	20.6
Electric, gas, water, and sanitary services	1.5030	.2437	11.3
Wholesale and retail trade:			
Wholesale trade	2.0284	.7066	38.0
Retail trade	2.0806	.8100	59.3
Finance, insurance, and real estate:			
Finance	2.0243	.6285	34.1
Insurance	2.3692	.7991	42.1
Real estate	1.4368	.1629	11.4
Services:			
Hotels and lodging places and amusements	2.1484	.6797	59.3
Personal services	2.0819	.7739	74.2
Business services	2.0800	.8366	56.3
Eating and drinking places	2.2853	.6551	70.9
Health services	2.2394	.9508	50.0
Miscellaneous services	2.1192	.7102	43.1
Households	1.2993	.3841	26.4

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.7621	0.5731	34.5
Forestry and fishery products	1.7490	.6319	37.4
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.4082	.2136	10.0
Miscellaneous mining	1.5775	.4666	29.5
Construction:			
New construction	1.7884	.6124	31.3
Maintenance and repair construction	1.7581	.7050	34.1
Manufacturing:			
Food and kindred products and tobacco	1.9909	.4200	24.6
Textile mill products	1.4507	.3359	27.7
Apparel	1.5834	.4687	43.4
Paper and allied products	1.4198	.3566	18.1
Printing and publishing	1.7474	.5847	34.9
Chemicals and petroleum refining	1.2795	.1273	6.0
Rubber and leather products	1.4988	.4399	35.9
Lumber and wood products and furniture	1.5242	.4185	24.9
Stone, clay, and glass products	1.5948	.4234	19.8
Primary metal industries	1.5300	.3989	16.1
Fabricated metal products	1.4208	.3138	16.0
Machinery, except electrical	1.5609	.5152	33.9
Electric and electronic equipment	1.5265	.4160	53.4
Motor vehicles and equipment	1.4138	.3857	17.7
Transportation equipment, except motor vehicles	1.6417	.6517	29.2
Instruments and related products	1.5911	.5299	35.8
Miscellaneous manufacturing industries	1.5905	.4503	46.7
Transportation, communication, and utilities:*			
Transportation	1.9155	.6755	36.5
Communication	1.5215	.4311	19.4
Electric, gas, water, and sanitary services	1.4539	.2368	10.6
Wholesale and retail trade:			
Wholesale trade	1.7876	.6452	38.0
Retail trade	1.8413	.7526	55.9
Finance, insurance, and real estate:			
Finance	1.7786	.5301	29.1
Insurance	2.0173	.7247	40.5
Real estate	1.3707	.1570	11.3
Services:			
Hotels and lodging places and amusements	1.8668	.6181	43.1
Personal services	1.7407	.7004	78.9
Business services	1.8663	.8226	61.4
Eating and drinking places	1.8287	.5538	57.8
Health services	1.9196	.8838	44.4
Miscellaneous services	1.8173	.6352	40.0
Households	1.0064	.3174	22.1

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.0953	0.5016	43.2
Forestry and fishery products	1.7502	.3230	26.0
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.3385	.2043	13.4
Miscellaneous mining	1.6159	.4145	20.2
Construction:			
New construction	1.9327	.6474	38.1
Maintenance and repair construction	1.8379	.7325	42.8
Manufacturing:			
Food and kindred products and tobacco	2.3005	.4699	32.5
Textile mill products	1.4614	.4257	66.8
Apparel	1.4490	.4320	43.9
Paper and allied products	1.8792	.4584	21.7
Printing and publishing	1.8798	.6109	41.1
Chemicals and petroleum refining	1.8149	.3476	17.6
Rubber and leather products	1.6091	.4084	29.0
Lumber and wood products and furniture	2.2129	.5299	30.5
Stone, clay, and glass products	1.9893	.5361	33.6
Primary metal industries	1.6895	.4239	22.2
Fabricated metal products	1.5069	.4401	25.7
Machinery, except electrical	1.6997	.4978	26.3
Electric and electronic equipment	1.6502	.5714	31.7
Motor vehicles and equipment	1.4065	.3286	21.6
Transportation equipment, except motor vehicles	1.7436	.4146	26.8
Instruments and related products	1.6164	.5399	34.2
Miscellaneous manufacturing industries	1.6661	.5080	47.4
Transportation, communication, and utilities:*			
Transportation	1.8003	.7650	41.4
Communication	1.4475	.4125	20.5
Electric, gas, water, and sanitary services	1.3697	.2151	10.5
Wholesale and retail trade:			
Wholesale trade	1.7190	.6306	40.4
Retail trade	1.7298	.7293	56.5
Finance, insurance, and real estate:			
Finance	1.6764	.5550	33.0
Insurance	1.9311	.8722	51.5
Real estate	1.2759	.1167	12.7
Services:			
Hotels and lodging places and amusements	1.7492	.5721	80.1
Personal services	1.6829	.6961	74.4
Business services	1.7622	.7678	47.4
Eating and drinking places	1.9169	.5691	77.7
Health services	1.8284	.8543	49.2
Miscellaneous services	1.7672	.6344	42.2
Households	.9187	.2953	23.9

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.3579	0.6266	46.8
Forestry and fishery products	1.7786	.3305	21.5
Mining:			
Coal mining	2.2911	.6810	26.4
Crude petroleum and natural gas	1.5945	.2621	12.0
Miscellaneous mining	2.1235	.5886	26.5
Construction:			
New construction	2.5121	.8047	39.0
Maintenance and repair construction	2.5459	.9154	43.9
Manufacturing:			
Food and kindred products and tobacco	2.6135	.5462	30.4
Textile mill products	1.7323	.4130	23.5
Apparel	1.7895	.5101	30.4
Paper and allied products	2.0047	.4928	23.1
Printing and publishing	2.2581	.6846	34.3
Chemicals and petroleum refining	2.0237	.3763	16.7
Rubber and leather products	2.2199	.5673	28.2
Lumber and wood products and furniture	2.2729	.6385	32.6
Stone, clay, and glass products	2.2815	.6601	30.3
Primary metal industries	2.3292	.6018	25.5
Fabricated metal products	2.5249	.7013	31.9
Machinery, except electrical	2.5657	.7325	32.0
Electric and electronic equipment	2.4809	.7281	34.6
Motor vehicles and equipment	2.4445	.5788	25.2
Transportation equipment, except motor vehicles	2.6387	.7270	31.1
Instruments and related products	2.2585	.6863	32.4
Miscellaneous manufacturing industries	2.3686	.6771	34.9
Transportation, communication, and utilities:*			
Transportation	2.3913	.8739	39.3
Communication	1.7618	.4947	20.6
Electric, gas, water, and sanitary services	1.9312	.3281	14.0
Wholesale and retail trade:			
Wholesale trade	2.1266	.7369	35.6
Retail trade	2.1836	.8423	58.2
Finance, insurance, and real estate:			
Finance	2.1549	.6919	33.1
Insurance	2.4704	.8358	39.9
Real estate	1.4350	.1610	9.6
Services:			
Hotels and lodging places and amusements	2.2556	.6935	54.3
Personal services	2.2065	.8207	70.9
Business services	2.2052	.8781	50.8
Eating and drinking places	2.4456	.6986	67.9
Health services	2.3927	.9780	50.4
Miscellaneous services	2.4011	.8131	44.2
Households	1.3975	.4123	24.9

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.2987	0.5710	61.9
Forestry and fishery products	1.8953	.6657	54.3
Mining:			
Coal mining	2.0770	.6150	25.8
Crude petroleum and natural gas	1.4835	.2318	11.4
Miscellaneous mining	1.9691	.5622	31.9
Construction:			
New construction	2.4278	.7679	44.1
Maintenance and repair construction	2.4378	.8789	50.2
Manufacturing:			
Food and kindred products and tobacco	2.5323	.4991	37.8
Textile mill products	1.6231	.3445	22.1
Apparel	1.6391	.4551	33.7
Paper and allied products	2.0304	.4921	25.6
Printing and publishing	1.9381	.6158	36.8
Chemicals and petroleum refining	1.7855	.3339	16.6
Rubber and leather products	2.0776	.5346	29.5
Lumber and wood products and furniture	2.1458	.6124	37.0
Stone, clay, and glass products	2.1875	.6198	32.1
Primary metal industries	2.2228	.5669	25.6
Fabricated metal products	2.3958	.6537	33.0
Machinery, except electrical	2.3929	.6816	33.2
Electric and electronic equipment	2.3449	.6609	33.0
Motor vehicles and equipment	2.4800	.6496	29.9
Transportation equipment, except motor vehicles	2.4561	.6573	31.2
Instruments and related products	2.0882	.6427	34.3
Miscellaneous manufacturing industries	2.2479	.6490	37.4
Transportation, communication, and utilities:*			
Transportation	2.1790	.8276	43.6
Communication	1.6070	.4439	20.6
Electric, gas, water, and sanitary services	1.8356	.2747	12.7
Wholesale and retail trade:			
Wholesale trade	1.9159	.6651	38.2
Retail trade	1.9547	.7683	61.5
Finance, insurance, and real estate:			
Finance	1.8059	.5666	34.5
Insurance	1.9709	.6143	34.4
Real estate	1.3400	.1280	10.3
Services:			
Hotels and lodging places and amusements	1.9983	.6122	70.1
Personal services	2.0198	.7554	78.4
Business services	1.9306	.7674	58.8
Eating and drinking places	2.2473	.6314	77.7
Health services	2.1490	.9068	51.4
Miscellaneous services	2.2133	.7390	49.6
Households	1.1988	.3494	26.0

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

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	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.4666	0.5817	62.0
Forestry and fishery products	1.8051	.3450	90.0
Mining:			
Coal mining	1.6804	.5077	27.7
Crude petroleum and natural gas	1.3817	.2106	12.7
Miscellaneous mining	1.8009	.5279	30.7
Construction:			
New construction	2.1052	.6877	44.4
Maintenance and repair construction	2.1200	.8024	51.9
Manufacturing:			
Food and kindred products and tobacco	2.9391	.5652	48.2
Textile mill products	1.6845	.4772	33.3
Apparel	1.5811	.4615	34.5
Paper and allied products	1.7559	.4323	23.5
Printing and publishing	1.8644	.5642	37.8
Chemicals and petroleum refining	1.7506	.3460	18.8
Rubber and leather products	1.7597	.4620	24.8
Lumber and wood products and furniture	1.8072	.5126	30.1
Stone, clay, and glass products	2.0296	.5322	29.2
Primary metal industries	1.7003	.3806	18.1
Fabricated metal products	1.8109	.4980	26.8
Machinery, except electrical	2.0121	.5533	26.9
Electric and electronic equipment	1.8693	.5403	28.8
Motor vehicles and equipment	1.9781	.5294	27.6
Transportation equipment, except motor vehicles	1.9269	.4459	23.7
Instruments and related products	1.8318	.5909	34.9
Miscellaneous manufacturing industries	1.9582	.5498	33.8
Transportation, communication, and utilities:*			
Transportation	1.9996	.8131	45.2
Communication	1.4949	.4166	21.2
Electric, gas, water, and sanitary services	1.5592	.2286	11.4
Wholesale and retail trade:			
Wholesale trade	1.8251	.6501	38.9
Retail trade	1.8613	.7544	65.3
Finance, insurance, and real estate:			
Finance	1.7704	.5610	34.5
Insurance	2.1823	.7397	42.5
Real estate	1.2910	.1149	11.8
Services:			
Hotels and lodging places and amusements	1.9113	.6000	81.7
Personal services	1.8714	.7333	82.4
Business services	1.8540	.7736	61.2
Eating and drinking places	2.1915	.6211	83.9
Health services	1.9917	.8771	55.0
Miscellaneous services	2.0540	.7310	51.0
Households	1.0992	.3330	27.5

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

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	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.8834	0.5849	53.9
Forestry and fishery products	1.8061	.3180	27.4
Mining:			
Coal mining	1.8454	.5395	24.3
Crude petroleum and natural gas	1.5175	.2373	12.3
Miscellaneous mining	1.9602	.5365	32.0
Construction:			
New construction	2.2596	.7183	42.2
Maintenance and repair construction	2.2258	.8090	47.1
Manufacturing:			
Food and kindred products and tobacco	3.0772	.5545	42.0
Textile mill products	1.6022	.3710	46.4
Apparel	1.6464	.4613	34.5
Paper and allied products	1.7829	.4172	21.9
Printing and publishing	1.9600	.5804	35.7
Chemicals and petroleum refining	1.9958	.2905	14.7
Rubber and leather products	1.8956	.4623	25.0
Lumber and wood products and furniture	1.8148	.5076	31.8
Stone, clay, and glass products	2.0776	.5091	26.0
Primary metal industries	1.8478	.4671	23.4
Fabricated metal products	1.8234	.5006	27.5
Machinery, except electrical	1.9712	.5587	29.7
Electric and electronic equipment	1.9124	.5524	31.5
Motor vehicles and equipment	1.8114	.3400	16.5
Transportation equipment, except motor vehicles	2.0464	.6516	30.7
Instruments and related products	1.8523	.5290	30.9
Miscellaneous manufacturing industries	1.9740	.5693	38.1
Transportation, communication, and utilities:*			
Transportation	2.1403	.7436	37.6
Communication	1.5853	.4359	20.6
Electric, gas, water, and sanitary services	1.9804	.2871	14.0
Wholesale and retail trade:			
Wholesale trade	1.9760	.6765	37.8
Retail trade	2.0198	.7810	60.7
Finance, insurance, and real estate:			
Finance	1.9287	.5951	34.4
Insurance	2.2886	.8007	43.9
Real estate	1.3764	.1405	12.5
Services:			
Hotels and lodging places and amusements	2.1355	.6435	78.3
Personal services	1.9858	.7405	72.6
Business services	1.9963	.7732	52.5
Eating and drinking places	2.2956	.6316	76.5
Health services	2.1923	.9121	52.7
Miscellaneous services	2.0916	.6965	43.9
Households	1.2534	.3551	26.1

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.3882	0.5928	56.6
Forestry and fishery products	1.8772	.3436	27.1
Mining:			
Coal mining	2.0687	.6044	26.3
Crude petroleum and natural gas	1.4912	.2307	12.0
Miscellaneous mining	1.9425	.5419	31.5
Construction:			
New construction	2.3593	.7422	44.9
Maintenance and repair construction	2.3620	.8466	50.7
Manufacturing:			
Food and kindred products and tobacco	2.1296	.3496	24.4
Textile mill products	1.8217	.5071	34.6
Apparel	1.7853	.5086	40.4
Paper and allied products	1.9397	.4530	23.3
Printing and publishing	2.0203	.6160	35.9
Chemicals and petroleum refining	1.8925	.2873	13.8
Rubber and leather products	2.1464	.5173	28.1
Lumber and wood products and furniture	2.0581	.5610	37.9
Stone, clay, and glass products	2.1708	.5973	31.9
Primary metal industries	2.2670	.5098	23.2
Fabricated metal products	2.2358	.6233	32.6
Machinery, except electrical	2.2211	.6224	30.9
Electric and electronic equipment	2.2986	.5813	29.5
Motor vehicles and equipment	2.3701	.4803	22.2
Transportation equipment, except motor vehicles	2.0803	.6062	27.1
Instruments and related products	2.0723	.6363	36.8
Miscellaneous manufacturing industries	2.1675	.5851	37.2
Transportation, communication, and utilities:*			
Transportation	2.1824	.7912	40.1
Communication	1.5627	.4271	20.7
Electric, gas, water, and sanitary services	1.9342	.3244	15.3
Wholesale and retail trade:			
Wholesale trade	1.9351	.6645	38.6
Retail trade	1.9828	.7711	62.1
Finance, insurance, and real estate:			
Finance	1.8230	.5652	33.3
Insurance	2.1131	.7283	38.3
Real estate	1.3315	.1252	10.3
Services:			
Hotels and lodging places and amusements	1.9599	.5719	60.4
Personal services	2.0736	.7605	74.4
Business services	1.9688	.7973	60.4
Eating and drinking places	2.1268	.5922	62.9
Health services	2.1328	.8989	50.3
Miscellaneous services	2.2376	.7089	44.7
Households	1.2430	.3537	25.6

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.0531	0.5701	55.3
Forestry and fishery products	1.9815	.6115	57.8
Mining:			
Coal mining	1.6418	.4878	16.4
Crude petroleum and natural gas	1.5102	.2344	11.1
Miscellaneous mining	1.8982	.4560	22.7
Construction:			
New construction	2.1950	.7055	38.4
Maintenance and repair construction	2.0947	.7812	41.6
Manufacturing:			
Food and kindred products and tobacco	1.9790	.3843	24.8
Textile mill products	1.7335	.4885	34.8
Apparel	1.6396	.4779	39.1
Paper and allied products	2.1873	.5097	23.8
Printing and publishing	2.1272	.6624	39.8
Chemicals and petroleum refining	2.0766	.2908	13.1
Rubber and leather products	2.1079	.4767	24.1
Lumber and wood products and furniture	2.3440	.5728	37.8
Stone, clay, and glass products	2.1168	.5631	28.9
Primary metal industries	1.7535	.3628	16.3
Fabricated metal products	1.6810	.4559	22.5
Machinery, except electrical	1.7379	.5145	24.9
Electric and electronic equipment	1.8323	.5394	26.7
Motor vehicles and equipment	1.3772	.2272	10.7
Transportation equipment, except motor vehicles	1.8895	.6447	29.8
Instruments and related products	1.7935	.5654	29.1
Miscellaneous manufacturing industries	1.8923	.5237	39.3
Transportation, communication, and utilities:*			
Transportation	2.2919	.6894	34.8
Communication	1.5708	.4361	19.7
Electric, gas, water, and sanitary services	1.9690	.2844	12.9
Wholesale and retail trade:			
Wholesale trade	1.9016	.6616	35.7
Retail trade	1.9332	.7628	56.6
Finance, insurance, and real estate:			
Finance	1.8102	.5553	30.7
Insurance	2.1913	.8117	42.0
Real estate	1.3556	.1377	10.8
Services:			
Hotels and lodging places and amusements	1.9075	.5852	51.6
Personal services	1.8661	.6975	63.7
Business services	1.8699	.7467	48.6
Eating and drinking places	1.9896	.5801	62.4
Health services	2.0575	.8885	47.7
Miscellaneous services	2.0035	.6767	38.2
Households	1.1199	.3325	23.1

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.6225	0.4022	36.0
Forestry and fishery products	1.5982	.3441	48.2
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.3479	.2080	10.9
Miscellaneous mining	1.5689	.4530	37.4
Construction:			
New construction	1.9290	.6464	44.9
Maintenance and repair construction	1.8787	.7444	51.2
Manufacturing:			
Food and kindred products and tobacco	1.7956	.3918	27.9
Textile mill products	2.0878	.4951	33.8
Apparel	2.2447	.6059	46.1
Paper and allied products	1.8771	.4658	24.5
Printing and publishing	1.9015	.6129	40.8
Chemicals and petroleum refining	1.5500	.3278	19.3
Rubber and leather products	1.9273	.5752	41.0
Lumber and wood products and furniture	2.0505	.4936	37.6
Stone, clay, and glass products	1.7897	.4913	33.3
Primary metal industries	1.4639	.3197	17.2
Fabricated metal products	1.5667	.4667	27.1
Machinery, except electrical	1.6498	.5190	30.6
Electric and electronic equipment	1.7941	.5969	36.2
Motor vehicles and equipment	1.5172	.4234	21.6
Transportation equipment, except motor vehicles	1.7399	.6648	33.3
Instruments and related products	1.7433	.5542	37.2
Miscellaneous manufacturing industries	1.7893	.5147	46.1
Transportation, communication, and utilities:*			
Transportation	1.8424	.7485	43.9
Communication	1.4558	.4133	20.7
Electric, gas, water, and sanitary services	1.3324	.2269	12.7
Wholesale and retail trade:			
Wholesale trade	1.7177	.6264	40.2
Retail trade	1.7534	.7335	62.0
Finance, insurance, and real estate:			
Finance	1.6630	.5575	36.4
Insurance	2.0925	.7146	40.2
Real estate	1.2990	.1234	11.3
Services:			
Hotels and lodging places and amusements	1.7521	.5736	93.8
Personal services	1.7634	.7024	81.8
Business services	1.7689	.7925	65.4
Eating and drinking places	1.8056	.5467	65.4
Health services	1.8670	.8439	53.9
Miscellaneous services	1.8496	.6152	45.5
Households	.9605	.3068	25.2

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.7359	0.4448	42.4
Forestry and fishery products	1.7714	.6395	62.7
Mining:			
Coal mining	1.6789	.5164	23.2
Crude petroleum and natural gas	1.4826	.2366	23.2
Miscellaneous mining	1.7815	.5367	32.4
Construction:			
New construction	2.1170	.7115	40.7
Maintenance and repair construction	2.0705	.7995	45.8
Manufacturing:			
Food and kindred products and tobacco	1.8898	.3850	22.8
Textile mill products	1.5657	.4076	26.5
Apparel	1.6894	.5088	35.7
Paper and allied products	1.7301	.4382	22.0
Printing and publishing	2.0170	.6398	34.9
Chemicals and petroleum refining	1.8176	.3997	19.3
Rubber and leather products	1.7455	.4714	25.3
Lumber and wood products and furniture	1.7571	.4770	28.8
Stone, clay, and glass products	2.0168	.5811	28.9
Primary metal industries	1.8919	.4859	20.8
Fabricated metal products	2.0186	.5170	25.0
Machinery, except electrical	1.8156	.5281	25.4
Electric and electronic equipment	1.9268	.6839	30.3
Motor vehicles and equipment	1.5227	.2862	13.1
Transportation equipment, except motor vehicles	1.9532	.6854	30.2
Instruments and related products	1.7982	.5957	30.3
Miscellaneous manufacturing industries	1.8836	.5723	35.9
Transportation, communication, and utilities:*			
Transportation	2.0817	.8076	43.2
Communication	1.5559	.4451	18.9
Electric, gas, water, and sanitary services	1.4447	.2514	11.6
Wholesale and retail trade:			
Wholesale trade	1.8892	.6816	35.5
Retail trade	1.9255	.7817	56.7
Finance, insurance, and real estate:			
Finance	1.8932	.6000	32.3
Insurance	2.2427	.7782	39.3
Real estate	1.3988	.1596	11.0
Services:			
Hotels and lodging places and amusements	1.9348	.6096	53.5
Personal services	1.8664	.7390	71.9
Business services	1.9370	.8052	48.8
Eating and drinking places	2.0506	.6094	62.8
Health services	2.0661	.9156	48.7
Miscellaneous services	2.0182	.7327	42.7
Households	1.0907	.3449	23.1

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.7819	0.6265	45.7
Forestry and fishery products	1.8676	.7058	50.4
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.4449	.2260	14.3
Miscellaneous mining	1.7414	.5212	26.9
Construction:			
New construction	2.1180	.7096	38.7
Maintenance and repair construction	2.1036	.8052	43.5
Manufacturing:			
Food and kindred products and tobacco	1.7492	.3866	21.2
Textile mill products	2.1916	.5268	29.5
Apparel	2.4951	.6940	46.5
Paper and allied products	1.9330	.4882	24.0
Printing and publishing	2.1905	.6822	37.2
Chemicals and petroleum refining	1.7593	.3763	18.0
Rubber and leather products	2.0698	.5653	31.8
Lumber and wood products and furniture	1.9051	.5566	33.1
Stone, clay, and glass products	1.8852	.5179	26.0
Primary metal industries	1.8032	.4165	19.9
Fabricated metal products	1.8463	.5333	26.5
Machinery, except electrical	2.0909	.6539	30.7
Electric and electronic equipment	2.1743	.7166	34.2
Motor vehicles and equipment	1.6554	.3326	15.2
Transportation equipment, except motor vehicles	2.0601	.6977	30.4
Instruments and related products	1.9929	.6192	29.3
Miscellaneous manufacturing industries	1.9295	.5201	30.0
Transportation, communication, and utilities:*			
Transportation	1.9287	.7727	40.[illegible]
Communication	1.6106	.4590	19.2
Electric, gas, water, and sanitary services	1.5046	.2284	10.2
Wholesale and retail trade:			
Wholesale trade	1.8890	.6784	35.4
Retail trade	1.9350	.7815	58.8
Finance, insurance, and real estate:			
Finance	1.9692	.6778	34.7
Insurance	2.2918	.7543	38.2
Real estate	1.3626	.1428	9.0
Services:			
Hotels and lodging places and amusements	1.9469	.6197	53.5
Personal services	1.9860	.7618	65.6
Business services	1.9825	.8338	50.8
Eating and drinking places	1.8994	.5789	61.7
Health services	2.0822	.8997	50.1
Miscellaneous services	2.0509	.7410	43.5
Households	1.0972	.3463	23.0

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.8466	0.5091	57.1
Forestry and fishery products	1.4769	.3024	31.7
Mining:			
Coal mining	1.6057	.4884	10.8
Crude petroleum and natural gas	1.3652	.2041	9.5
Miscellaneous mining	1.8379	.4758	21.0
Construction:			
New construction	2.1273	.7057	37.7
Maintenance and repair construction	2.1109	.7994	42.3
Manufacturing:			
Food and kindred products and tobacco	1.8035	.3627	21.3
Textile mill products	1.7104	.3968	18.0
Apparel	1.8219	.5146	23.7
Paper and allied products	1.8986	.4618	20.6
Printing and publishing	2.0173	.6425	34.0
Chemicals and petroleum refining	1.8908	.3812	16.9
Rubber and leather products	2.0926	.5254	26.0
Lumber and wood products and furniture	1.9742	.5763	28.9
Stone, clay, and glass products	1.9494	.5568	24.8
Primary metal industries	1.9765	.5308	21.8
Fabricated metal products	2.2379	.6416	28.0
Machinery, except electrical	2.1191	.6549	28.1
Electric and electronic equipment	2.0526	.5883	26.6
Motor vehicles and equipment	2.5490	.5563	22.5
Transportation equipment, except motor vehicles	2.1907	.6376	24.9
Instruments and related products	1.9383	.6084	29.6
Miscellaneous manufacturing industries	1.9864	.5718	32.1
Transportation, communication, and utilities:*			
Transportation	1.8688	.7615	35.4
Communication	1.4551	.4064	16.8
Electric, gas, water, and sanitary services	1.4849	.2132	9.0
Wholesale and retail trade:			
Wholesale trade	1.7620	.6351	31.5
Retail trade	1.7845	.7361	54.3
Finance, insurance, and real estate:			
Finance	1.7112	.5490	29.9
Insurance	1.8862	.6406	32.1
Real estate	1.2302	.0942	8.5
Services:			
Hotels and lodging places and amusements	1.8159	.5666	56.5
Personal services	1.7805	.7008	72.4
Business services	1.8147	.7747	49.7
Eating and drinking places	1.9174	.5662	67.3
Health services	1.9650	.8711	45.9
Miscellaneous services	2.0283	.6978	40.5
Households	.9909	.3016	20.3

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

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	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.4578	0.6016	49.3
Forestry and fishery products	1.7908	.3476	32.5
Mining:			
Coal mining	1.7596	.5324	42.5
Crude petroleum and natural gas	1.4875	.2411	11.7
Miscellaneous mining	1.9162	.4845	23.1
Construction:			
New construction	2.2388	.7353	40.6
Maintenance and repair construction	2.2343	.8376	45.7
Manufacturing:			
Food and kindred products and tobacco	2.8940	.5767	38.7
Textile mill products	1.6334	.4543	27.3
Apparel	1.6604	.4822	37.4
Paper and allied products	1.9770	.4844	22.0
Printing and publishing	2.2184	.6729	38.1
Chemicals and petroleum refining	1.6704	.2921	14.8
Rubber and leather products	1.9404	.5087	28.1
Lumber and wood products and furniture	1.9308	.5289	29.4
Stone, clay, and glass products	1.9770	.5700	30.3
Primary metal industries	1.8245	.5018	24.1
Fabricated metal products	1.9193	.5933	28.6
Machinery, except electrical	2.1319	.6251	30.2
Electric and electronic equipment	2.1024	.6440	34.1
Motor vehicles and equipment	1.7076	.3558	17.3
Transportation equipment, except motor vehicles	2.0656	.6113	29.4
Instruments and related products	2.0011	.6416	31.4
Miscellaneous manufacturing industries	1.9722	.5538	34.3
Transportation, communication, and utilities:*			
Transportation	2.0378	.7591	37.6
Communication	1.6163	.4550	21.5
Electric, gas, water, and sanitary services	1.5206	.2470	11.2
Wholesale and retail trade:			
Wholesale trade	1.9811	.6969	37.0
Retail trade	2.0212	.8009	61.1
Finance, insurance, and real estate:			
Finance	2.0155	.6587	35.4
Insurance	2.3550	.7780	40.7
Real estate	1.3848	.1483	11.6
Services:			
Hotels and lodging places and amusements	2.1275	.6783	72.1
Personal services	2.0027	.7781	75.2
Business services	2.0437	.8426	58.2
Eating and drinking places	2.3483	.6677	77.2
Health services	2.1687	.9413	54.5
Miscellaneous services	2.2048	.7069	44.4
Households	1.2289	.3712	26.5

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.2715	0.5818	56.7
Forestry and fishery products	1.9386	.4046	51.4
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.4618	.2292	12.2
Miscellaneous mining	1.8923	.5352	34.9
Construction:			
New construction	2.3658	.7608	49.3
Maintenance and repair construction	2.2460	.8261	52.9
Manufacturing:			
Food and kindred products and tobacco	2.6388	.5357	43.8
Textile mill products	1.7744	.4279	29.5
Apparel	1.9299	.5484	46.9
Paper and allied products	2.3033	.5589	29.7
Printing and publishing	2.1150	.6603	43.3
Chemicals and petroleum refining	1.9768	.2884	15.2
Rubber and leather products	2.0685	.5088	30.0
Lumber and wood products and furniture	2.3481	.6259	43.7
Stone, clay, and glass products	2.1056	.5820	34.2
Primary metal industries	1.7222	.3839	20.8
Fabricated metal products	1.8345	.4971	29.0
Machinery, except electrical	1.8720	.5120	29.6
Electric and electronic equipment	1.9139	.5555	32.4
Motor vehicles and equipment	1.8891	.5027	25.6
Transportation equipment, except motor vehicles	1.9968	.6990	35.1
Instruments and related products	1.9343	.5406	34.3
Miscellaneous manufacturing industries	2.0317	.5891	39.3
Transportation, communication, and utilities:*			
Transportation	2.2049	.8127	45.7
Communication	1.5575	.4346	21.6
Electric, gas, water, and sanitary services	1.8769	.2851	14.5
Wholesale and retail trade:			
Wholesale trade	1.8704	.6580	40.9
Retail trade	1.9046	.7624	63.1
Finance, insurance, and real estate:			
Finance	1.7734	.5598	34.7
Insurance	2.1277	.7612	42.2
Real estate	1.3152	.1227	10.3
Services:			
Hotels and lodging places and amusements	1.9452	.6179	72.6
Personal services	1.9462	.7194	75.1
Business services	1.9150	.8091	61.2
Eating and drinking places	2.1485	.6157	73.5
Health services	2.0674	.8931	51.1
Miscellaneous services	2.0544	.7357	50.3
Households	1.1468	.3442	26.8

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.6437	0.6157	49.3
Forestry and fishery products	1.8950	.3425	72.0
Mining:			
Coal mining	1.9285	.5512	23.0
Crude petroleum and natural gas	1.5313	.2369	12.7
Miscellaneous mining	1.9646	.5140	25.9
Construction:			
New construction	2.3984	.7386	41.9
Maintenance and repair construction	2.4056	.8372	47.0
Manufacturing:			
Food and kindred products and tobacco	2.6858	.5126	30.9
Textile mill products	1.7719	.4047	26.0
Apparel	1.8479	.5142	38.5
Paper and allied products	1.7251	.3958	20.2
Printing and publishing	2.0637	.6128	33.8
Chemicals and petroleum refining	2.1654	.4461	21.7
Rubber and leather products	2.1829	.5888	37.1
Lumber and wood products and furniture	2.0420	.5553	34.9
Stone, clay, and glass products	2.2810	.6029	30.5
Primary metal industries	2.1744	.4889	23.1
Fabricated metal products	2.1428	.5463	27.5
Machinery, except electrical	2.1524	.6012	30.6
Electric and electronic equipment	2.2236	.6309	32.7
Motor vehicles and equipment	2.0330	.3735	17.5
Transportation equipment, except motor vehicles	2.0776	.6229	28.1
Instruments and related products	2.0894	.6311	32.7
Miscellaneous manufacturing industries	2.1768	.6008	40.1
Transportation, communication, and utilities:*			
Transportation	2.1715	.7680	37.6
Communication	1.6898	.4526	20.5
Electric, gas, water, and sanitary services	1.7187	.2735	12.7
Wholesale and retail trade:			
Wholesale trade	2.0260	.6739	36.9
Retail trade	2.0698	.7728	57.6
Finance, insurance, and real estate:			
Finance	2.0192	.6174	34.5
Insurance	2.2887	.7253	39.0
Real estate	1.4121	.1477	10.8
Services:			
Hotels and lodging places and amusements	2.1873	.6607	61.7
Personal services	2.0927	.7510	74.8
Business services	2.0884	.8093	56.2
Eating and drinking places	2.4538	.6573	71.9
Health services	2.3020	.9115	51.4
Miscellaneous services	2.2148	.7135	45.0
Households	1.3743	.3874	26.6

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.1299	0.4308	49.7
Forestry and fishery products	1.6440	.2847	30.0
Mining:			
Coal mining	1.7739	.5345	23.1
Crude petroleum and natural gas	1.4056	.2112	11.9
Miscellaneous mining	1.6891	.4543	24.7
Construction:			
New construction	1.9584	.6376	42.3
Maintenance and repair construction	1.8816	.7283	47.6
Manufacturing:			
Food and kindred products and tobacco	2.2877	.4151	34.3
Textile mill products	0	0	0
Apparel	1.4313	.3964	29.8
Paper and allied products	2.0320	.4762	24.1
Printing and publishing	1.7038	.5694	41.8
Chemicals and petroleum refining	1.8264	.2045	10.9
Rubber and leather products	1.5821	.4069	33.1
Lumber and wood products and furniture	2.3299	.5476	33.9
Stone, clay, and glass products	2.1223	.5348	30.6
Primary metal industries	1.8633	.3146	16.0
Fabricated metal products	1.5414	.4428	25.4
Machinery, except electrical	1.5314	.4618	39.7
Electric and electronic equipment	1.6138	.5237	41.7
Motor vehicles and equipment	1.3875	.3032	17.3
Transportation equipment, except motor vehicles	1.7254	.4078	23.7
Instruments and related products	1.5930	.4864	30.9
Miscellaneous manufacturing industries	1.6446	.5116	48.7
Transportation, communication, and utilities:*			
Transportation	1.9173	.7565	41.5
Communication	1.4550	.4056	20.7
Electric, gas, water, and sanitary services	1.8849	.3106	15.4
Wholesale and retail trade:			
Wholesale trade	1.7510	.6255	39.7
Retail trade	1.7736	.7247	60.6
Finance, insurance, and real estate:			
Finance	1.7089	.5653	35.0
Insurance	1.9930	.8021	51.8
Real estate	1.2876	.1175	14.9
Services:			
Hotels and lodging places and amusements	1.7849	.5728	92.8
Personal services	1.7316	.6902	83.0
Business services	1.7549	.7527	69.5
Eating and drinking places	1.8600	.5426	75.6
Health services	1.8576	.8381	53.7
Miscellaneous services	1.8088	.6354	50.4
Households	.9505	.2915	25.5

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.6927	0.5509	57.2
Forestry and fishery products	1.7737	.3091	30.0
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.3970	.2124	11.7
Miscellaneous mining	1.7209	.5106	34.4
Construction:			
New construction	2.0548	.6733	44.1
Maintenance and repair construction	2.0115	.7633	49.6
Manufacturing:			
Food and kindred products and tobacco	3.0753	.5471	46.1
Textile mill products	1.5041	.3786	29.6
Apparel	1.5805	.4527	42.6
Paper and allied products	1.5204	.3706	20.9
Printing and publishing	1.7591	.5723	38.4
Chemicals and petroleum refining	1.7582	.3426	19.1
Rubber and leather products	1.7270	.5042	28.3
Lumber and wood products and furniture	1.6886	.4651	29.0
Stone, clay, and glass products	2.0131	.5467	32.3
Primary metal industries	1.5674	.3422	17.4
Fabricated metal products	1.7137	.4497	24.7
Machinery, except electrical	1.7583	.4898	26.4
Electric and electronic equipment	1.9202	.5991	33.4
Motor vehicles and equipment	1.6912	.4341	23.3
Transportation equipment, except motor vehicles	1.7931	.4475	24.6
Instruments and related products	1.7864	.5717	34.4
Miscellaneous manufacturing industries	1.7461	.5114	37.0
Transportation, communication, and utilities:*			
Transportation	1.9965	.7952	40.8
Communication	1.5474	.4292	21.4
Electric, gas, water, and sanitary services	1.7031	.2379	12.0
Wholesale and retail trade:			
Wholesale trade	1.8398	.6460	39.0
Retail trade	1.8415	.7397	62.1
Finance, insurance, and real estate:			
Finance	1.8513	.5950	35.5
Insurance	2.2531	.6884	40.3
Real estate	1.3272	.1262	11.5
Services:			
Hotels and lodging places and amusements	1.8874	.5797	83.1
Personal services	1.7937	.7017	74.6
Business services	1.8700	.7590	60.5
Eating and drinking places	2.1347	.5961	78.8
Health services	2.0169	.8743	54.4
Miscellaneous services	1.9760	.6072	41.8
Households	1.0856	.3247	26.5

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.5825	0.3302	24.9
Forestry and fishery products	1.4406	.5532	43.8
Mining:			
Coal mining	1.4155	.4219	7.8
Crude petroleum and natural gas	1.3738	.1956	9.1
Miscellaneous mining	1.5464	.3935	18.5
Construction:			
New construction	1.7253	.5734	27.7
Maintenance and repair construction	1.6546	.6535	30.9
Manufacturing:			
Food and kindred products and tobacco	1.4552	.2640	14.1
Textile mill products	1.4182	.3761	25.1
Apparel	1.3684	.3710	31.8
Paper and allied products	1.4128	.3526	20.5
Printing and publishing	1.5793	.5082	30.8
Chemicals and petroleum refining	1.4652	.2563	11.1
Rubber and leather products	1.4159	.3644	21.8
Lumber and wood products and furniture	1.4353	.3894	23.8
Stone, clay, and glass products	1.7294	.4148	18.8
Primary metal industries	1.5468	.3175	12.9
Fabricated metal products	1.4235	.3857	18.3
Machinery, except electrical	1.5083	.4643	22.7
Electric and electronic equipment	1.5264	.4367	22.9
Motor vehicles and equipment	1.4237	.3856	16.3
Transportation equipment, except motor vehicles	1.5052	.4646	20.1
Instruments and related products	1.5178	.4756	23.8
Miscellaneous manufacturing industries	1.5271	.4478	22.9
Transportation, communication, and utilities:*			
Transportation	1.6468	.6557	30.3
Communication	1.4398	.3939	17.1
Electric, gas, water, and sanitary services	1.3669	.1998	8.0
Wholesale and retail trade:			
Wholesale trade	1.6506	.5867	30.4
Retail trade	1.6862	.6841	46.8
Finance, insurance, and real estate:			
Finance	1.6439	.4961	25.6
Insurance	1.8661	.8072	41.1
Real estate	1.3119	.1266	12.2
Services:			
Hotels and lodging places and amusements	1.6917	.5532	35.1
Personal services	1.6114	.6302	56.2
Business services	1.7133	.7239	39.8
Eating and drinking places	1.5702	.4700	50.0
Health services	1.7590	.8101	36.5
Miscellaneous services	1.6372	.5392	28.8
Households	.7928	.2471	16.4

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.5953	0.4658	59.4
Forestry and fishery products	1.5643	.3857	46.1
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.4059	.2213	16.6
Miscellaneous mining	1.7044	.5177	30.6
Construction:			
New construction	2.0694	.7001	40.6
Maintenance and repair construction	1.9986	.7858	44.6
Manufacturing:			
Food and kindred products and tobacco	1.5807	.2923	17.3
Textile mill products	1.9268	.4857	30.6
Apparel	2.0428	.5873	43.6
Paper and allied products	1.8201	.4498	23.2
Printing and publishing	2.0090	.6073	38.2
Chemicals and petroleum refining	1.5792	.3332	17.7
Rubber and leather products	1.9872	.5570	34.7
Lumber and wood products and furniture	2.0588	.5657	40.0
Stone, clay, and glass products	1.8193	.5466	31.0
Primary metal industries	1.6437	.4327	22.1
Fabricated metal products	1.6860	.5016	27.5
Machinery, except electrical	1.9461	.6155	30.7
Electric and electronic equipment	1.9969	.6866	37.2
Motor vehicles and equipment	1.5466	.3008	15.8
Transportation equipment, except motor vehicles	1.8798	.6256	32.5
Instruments and related products	1.9151	.6227	34.0
Miscellaneous manufacturing industries	1.8818	.5190	35.7
Transportation, communication, and utilities:*			
Transportation	1.8446	.7973	46.7
Communication	1.4882	.4260	19.0
Electric, gas, water, and sanitary services	1.3388	.2208	10.8
Wholesale and retail trade:			
Wholesale trade	1.7637	.6431	36.1
Retail trade	1.8101	.7501	60.7
Finance, insurance, and real estate:			
Finance	1.7935	.5903	37.0
Insurance	2.1643	.7199	43.5
Real estate	1.3392	.1382	10.5
Services:			
Hotels and lodging places and amusements	1.7772	.5638	65.6
Personal services	1.8534	.7502	79.7
Business services	1.8417	.8070	55.0
Eating and drinking places	1.8212	.5487	65.1
Health services	1.9261	.8763	50.9
Miscellaneous services	1.8686	.6673	45.1
Households	.9738	.3131	23.7

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.9676	0.6835	55.3
Forestry and fishery products	1.9105	.6852	55.7
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.5016	.2412	13.0
Miscellaneous mining	1.9254	.5566	27.4
Construction:			
New construction	2.3572	.7668	38.1
Maintenance and repair construction	2.3681	.8690	42.8
Manufacturing:			
Food and kindred products and tobacco	1.9241	.3974	18.6
Textile mill products	2.0530	.4965	26.2
Apparel	2.2962	.6412	40.3
Paper and allied products	1.9426	.4533	20.6
Printing and publishing	2.1649	.6688	35.1
Chemicals and petroleum refining	2.0006	.3940	17.2
Rubber and leather products	2.3026	.5846	29.0
Lumber and wood products and furniture	2.0502	.5744	30.9
Stone, clay, and glass products	2.1323	.6430	30.3
Primary metal industries	2.0603	.4450	19.5
Fabricated metal products	2.0339	.5418	25.0
Machinery, except electrical	2.1357	.6423	29.0
Electric and electronic equipment	2.2944	.7254	32.6
Motor vehicles and equipment	1.7722	.3532	15.5
Transportation equipment, except motor vehicles	2.0583	.6777	28.6
Instruments and related products	2.1406	.6322	28.0
Miscellaneous manufacturing industries	2.2484	.6106	33.3
Transportation, communication, and utilities:*			
Transportation	2.3158	.8141	38.9
Communication	1.6626	.4715	18.4
Electric, gas, water, and sanitary services	1.6667	.2945	12.6
Wholesale and retail trade:			
Wholesale trade	2.0113	.7054	34.1
Retail trade	2.0542	.8084	55.9
Finance, insurance, and real estate:			
Finance	2.0144	.6485	32.6
Insurance	2.3640	.7857	37.3
Real estate	1.3861	.1485	9.5
Services:			
Hotels and lodging places and amusements	2.0978	.6700	42.1
Personal services	2.0860	.7818	69.9
Business services	2.0684	.8265	44.9
Eating and drinking places	2.1155	.6253	59.5
Health services	2.2787	.9588	47.9
Miscellaneous services	2.1340	.7253	38.9
Households	1.2450	.3736	22.5

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.2599	0.4932	52.9
Forestry and fishery products	1.6888	.2968	28.8
Mining:			
Coal mining	1.8362	.5460	21.2
Crude petroleum and natural gas	1.4699	.2215	11.7
Miscellaneous mining	1.8018	.4438	21.1
Construction:			
New construction	2.0033	.6547	40.3
Maintenance and repair construction	1.9111	.7315	45.2
Manufacturing:			
Food and kindred products and tobacco	2.1885	.4153	34.1
Textile mill products	1.6105	.4246	28.6
Apparel	1.5518	.4536	36.3
Paper and allied products	1.7121	.4332	26.7
Printing and publishing	1.7401	.5774	40.9
Chemicals and petroleum refining	1.8401	.2102	10.6
Rubber and leather products	1.5514	.4376	32.8
Lumber and wood products and furniture	1.7705	.4386	28.0
Stone, clay, and glass products	2.0833	.5295	29.8
Primary metal industries	2.4707	.3783	18.1
Fabricated metal products	1.5635	.4227	26.0
Machinery, except elecirical	1.6892	.5162	28.6
Electric and electronic equipment	1.8300	.5928	32.0
Motor vehicles and equipment	1.3091	.2141	10.6
Transportation equipment, except motor vehicles	1.7913	.5803	29.0
Instruments and related products	1.6869	.5450	30.6
Miscellaneous manufacturing industries	1.6916	.4536	37.1
Transportation, communication, and utilities:*			
Transportation	1.9580	.7144	37.2
Communication	1.5646	.4365	21.8
Electric, gas, water, and sanitary services	1.9733	.2820	13.0
Wholesale and retail trade:			
Wholesale trade	1.8417	.6481	38.6
Retail trade	1.8790	.7471	57.7
Finance, insurance, and real estate:			
Finance	1.7556	.5462	32.8
Insurance	2.0027	.7455	43.1
Real estate	1.3395	.1319	12.0
Services:			
Hotels and lodging places and amusements	1.8835	.5789	65.3
Personal services	1.8092	.7048	79.4
Business services	1.8985	.7812	46.2
Eating and drinking places	1.8592	.5435	67.6
Health services	1.9799	.8679	49.0
Miscellaneous services	1.9568	.7118	47.8
Households	1.0560	.3160	24.3

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.7164	0.4264	49.6
Forestry and fishery products	1.6293	.4421	52.5
Mining:			
Coal mining	1.6067	.4568	24.3
Crude petroleum and natural gas	1.4479	.2067	7.9
Miscellaneous mining	1.7411	.4503	19.9
Construction:			
New construction	1.9951	.6226	30.3
Maintenance and repair construction	2.0101	.7245	35.0
Manufacturing:			
Food and kindred products and tobacco	1.8085	.3390	17.6
Textile mill products	1.7284	.4007	22.0
Apparel	2.0381	.5477	32.0
Paper and allied products	1.8273	.4150	18.6
Printing and publishing	2.1795	.6031	28.3
Chemicals and petroleum refining	1.5622	.2176	8.8
Rubber and leather products	1.8816	.4669	25.8
Lumber and wood products and furniture	1.7832	.4820	27.7
Stone, clay, and glass products	1.8966	.5139	22.5
Primary metal industries	1.8358	.3741	15.2
Fabricated metal products	1.8000	.4848	22.4
Machinery, except electrical	1.9588	.5569	22.9
Electric and electronic equipment	2.0245	.6174	27.2
Motor vehicles and equipment	1.8771	.4662	18.1
Transportation equipment, except motor vehicles	1.9873	.5962	23.3
Instruments and related products	1.8516	.4888	20.2
Miscellaneous manufacturing industries	1.9111	.4850	26.5
Transportation, communication, and utilities:*			
Transportation	2.0401	.6945	30.9
Communication	1.6587	.4384	17.1
Electric, gas, water, and sanitary services	1.5389	.2353	9.3
Wholesale and retail trade:			
Wholesale trade	1.8834	.6295	29.0
Retail trade	1.9501	.7315	51.6
Finance, insurance, and real estate:			
Finance	1.9858	.6688	26.6
Insurance	2.2441	.7340	33.0
Real estate	1.3666	.1382	7.7
Services:			
Hotels and lodging places and amusements	2.1062	.6073	39.9
Personal services	1.9562	.7054	65.7
Business services	1.9566	.7668	41.9
Eating and drinking places	1.9959	.5544	50.1
Health services	2.0883	.8342	40.7
Miscellaneous services	2.1195	.7500	40.1
Households	1.0918	.3082	18.0

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.1193	0.5601	58.9
Forestry and fishery products	1.6979	.3231	30.6
Mining:			
Coal mining	1.6602	.5035	14.1
Crude petroleum and natural gas	1.4520	.2291	17.4
Miscellaneous mining	1.7659	.4609	26.2
Construction:			
New construction	2.3310	.7569	52.4
Maintenance and repair construction	2.2649	.8444	58.8
Manufacturing:			
Food and kindred products and tobacco	2.1044	.3744	26.6
Textile mill products	2.6646	.6351	41.5
Apparel	2.7460	.7411	57.3
Paper and allied products	2.2372	.5570	30.1
Printing and publishing	2.1488	.6601	43.2
Chemicals and petroleum refining	1.9931	.4690	25.4
Rubber and leather products	2.0619	.5566	32.3
Lumber and wood products and furniture	2.3962	.6841	47.3
Stone, clay, and glass products	2.0076	.6025	35.3
Primary metal industries	1.8595	.4206	22.5
Fabricated metal products	1.8973	.4983	28.5
Machinery, except electrical	1.9965	.5895	31.2
Electric and electronic equipment	2.0632	.6264	34.8
Motor vehicles and equipment	1.9596	.4822	26.2
Transportation equipment, except motor vehicles	2.2168	.6162	34.5
Instruments and related products	1.9506	.5701	31.9
Miscellaneous manufacturing industries	2.1419	.6251	45.3
Transportation, communication, and utilities:*			
Transportation	2.0158	.7868	43.2
Communication	1.5970	.4485	22.5
Electric, gas, water, and sanitary services	1.4134	.2320	12.0
Wholesale and retail trade:			
Wholesale trade	1.8893	.6702	39.8
Retail trade	1.9148	.7682	62.9
Finance, insurance, and real estate:			
Finance	1.8289	.5736	34.5
Insurance	2.0096	.6766	39.0
Real estate	1.3491	.1362	11.6
Services:			
Hotels and lodging places and amusements	1.9685	.6154	71.4
Personal services	1.9940	.7536	78.1
Business services	1.9322	.7968	62.4
Eating and drinking places	2.1279	.6095	73.9
Health services	2.1198	.9184	52.3
Miscellaneous services	2.0880	.7224	49.5
Households	1.1608	.3506	27.0

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.1944	0.5050	34.0
Forestry and fishery products	1.7635	.3141	20.5
Mining:			
Coal mining	1.7941	.5295	21.7
Crude petroleum and natural gas	1.4006	.2076	10.4
Miscellaneous mining	1.7289	.4960	30.6
Construction:			
New construction	1.8548	.6060	34.2
Maintenance and repair construction	1.8391	.7066	38.9
Manufacturing:			
Food and kindred products and tobacco	2.3966	.4590	28.2
Textile mill products	1.5300	.4270	27.6
Apparel	1.4695	.4240	34.4
Paper and allied products	1.5261	.3714	21.4
Printing and publishing	1.7122	.5685	41.6
Chemicals and petroleum refining	1.8123	.1884	9.4
Rubber and leather products	1.5192	.3717	21.5
Lumber and wood products and furniture	1.6234	.4772	33.6
Stone, clay, and glass products	1.8002	.4854	28.7
Primary metal industries	0	0	0
Fabricated metal products	1.5115	.3970	22.3
Machinery, except electrical	1.5903	.4263	23.2
Electric and electronic equipment	1.6446	.5215	36.4
Motor vehicles and equipment	1.3427	.2447	12.8
Transportation equipment, except motor vehicles	1.7198	.6143	32.5
Instruments and related products	1.6378	.5180	46.8
Miscellaneous manufacturing industries	1.5443	.3541	24.0
Transportation, communication, and utilities:*			
Transportation	1.9580	.7445	38.6
Communication	1.4702	.3970	19.5
Electric, gas, water, and sanitary services	1.9111	.2882	13.2
Wholesale and retail trade:			
Wholesale trade	1.7703	.6151	35.6
Retail trade	1.8002	.7153	58.6
Finance, insurance, and real estate:			
Finance	1.7134	.5381	32.4
Insurance	1.9885	.6940	38.0
Real estate	1.2899	.1157	9.1
Services:			
Hotels and lodging places and amusements	1.8557	.5814	87.4
Personal services	1.7736	.6988	82.1
Business services	1.7837	.7485	54.5
Eating and drinking places	1.9643	.5589	72.3
Health services	1.8872	.8329	49.8
Miscellaneous services	2.0339	.6228	42.1
Households	1.0352	.3065	24.4

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.1682	0.5748	56.6
Forestry and fishery products	1.7210	.4389	33.8
Mining:			
Coal mining	2.1711	.6374	26.4
Crude petroleum and natural gas	1.5029	.2360	11.5
Miscellaneous mining	2.0377	.5573	30.6
Construction:			
New construction	2.4810	.7777	42.1
Maintenance and repair construction	2.4871	.8812	47.4
Manufacturing:			
Food and kindred products and tobacco	2.2453	.4463	26.8
Textile mill products	1.8418	.4233	22.8
Apparel	1.7348	.4839	31.9
Paper and allied products	2.3079	.5529	26.2
Printing and publishing	2.3332	.6825	36.8
Chemicals and petroleum refining	2.0872	.3674	17.2
Rubber and leather products	2.2164	.5503	26.7
Lumber and wood products and furniture	2.1313	.5817	32.7
Stone, clay, and glass products	2.2218	.6201	29.6
Primary metal industries	2.3660	.5966	25.8
Fabricated metal products	2.4967	.6809	31.3
Machinery, except electrical	2.3965	.6962	32.6
Electric and electronic equipment	2.3542	.6469	31.1
Motor vehicles and equipment	2.7267	.6364	27.7
Transportation equipment, except motor vehicles	2.4328	.7365	31.6
Instruments and related products	2.2004	.6856	35.3
Miscellaneous manufacturing industries	2.2715	.6284	36.0
Transportation, communication, and utilities:*			
Transportation	2.2063	.8212	40.5
Communication	1.6359	.4497	19.8
Electric, gas, water, and sanitary services	1.8736	.3160	14.3
Wholesale and retail trade:			
Wholesale trade	1.9789	.6802	36.0
Retail trade	2.0201	.7835	58.7
Finance, insurance, and real estate:			
Finance	1.9129	.5785	32.7
Insurance	2.0229	.6345	33.4
Real estate	1.3412	.1271	9.5
Services:			
Hotels and lodging places and amusements	2.0641	.6323	59.7
Personal services	2.0667	.7695	77.2
Business services	2.0267	.8170	56.8
Eating and drinking places	2.2541	.6357	72.1
Health services	2.1973	.9174	49.8
Miscellaneous services	2.3006	.7623	47.1
Households	1.2671	.3657	24.8

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.4729	0.4699	36.8
Forestry and fishery products	1.6823	.2889	35.2
Mining:			
Coal mining	1.9043	.5544	24.3
Crude petroleum and natural gas	1.5617	.2412	11.8
Miscellaneous mining	1.9003	.5283	29.3
Construction:			
New construction	2.2692	.7201	42.6
Maintenance and repair construction	2.2486	.8130	47.9
Manufacturing:			
Food and kindred products and tobacco	2.4379	.4356	27.2
Textile mill products	1.6411	.3242	21.1
Apparel	1.6932	.4814	38.4
Paper and allied products	1.6681	.3553	17.1
Printing and publishing	1.8882	.5741	35.1
Chemicals and petroleum refining	1.9421	.2208	10.5
Rubber and leather products	1.7470	.4316	20.8
Lumber and wood products and furniture	1.7901	.4814	29.4
Stone, clay, and glass products	2.1660	.6044	29.8
Primary metal industries	1.8672	.4578	21.5
Fabricated metal products	1.8518	.4981	25.0
Machinery, except electrical	1.9846	.5505	26.8
Electric and electronic equipment	1.9863	.6085	30.3
Motor vehicles and equipment	1.8939	.3632	16.8
Transportation equipment, except motor vehicles	2.0497	.6365	29.4
Instruments and related products	1.8688	.5754	29.2
Miscellaneous manufacturing industries	1.9086	.5470	38.2
Transportation, communication, and utilities:*			
Transportation	2.1532	.7302	35.3
Communication	1.6264	.4449	20.3
Electric, gas, water, and sanitary services	2.0355	.2951	13.8
Wholesale and retail trade:			
Wholesale trade	1.9713	.6706	36.0
Retail trade	2.0193	.7738	57.1
Finance, insurance, and real estate:			
Finance	1.8908	.5810	31.1
Insurance	2.2715	.8136	43.3
Real estate	1.3821	.1407	10.5
Services:			
Hotels and lodging places and amusements	2.0436	.6210	64.9
Personal services	2.0117	.7382	78.5
Business services	2.0114	.8118	56.3
Eating and drinking places	2.1702	.6040	65.5
Health services	2.1462	.9013	49.2
Miscellaneous services	2.3178	.6559	38.2
Households	1.2430	.3475	23.9

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.9304	0.5398	51.9
Forestry and fishery products	1.7189	.3330	29.5
Mining:			
Coal mining	1.6637	.5019	21.2
Crude petroleum and natural gas	1.3962	.2084	14.1
Miscellaneous mining	1.7615	.5137	31.5
Construction:			
New construction	2.1811	.7058	42.4
Maintenance and repair construction	2.0881	.7859	46.8
Manufacturing:			
Food and kindred products and tobacco	2.1441	.4700	31.1
Textile mill products	1.5598	.4007	27.0
Apparel	1.6414	.4663	33.5
Paper and allied products	1.9627	.4849	22.9
Printing and publishing	2.0851	.6448	37.7
Chemicals and petroleum refining	1.6780	.3439	18.4
Rubber and leather products	1.6730	.4352	25.8
Lumber and wood products and furniture	2.4119	.5747	32.3
Stone, clay, and glass products	1.9663	.5696	30.4
Primary metal industries	1.7644	.4441	20.5
Fabricated metal products	1.7648	.4796	24.3
Machinery, except electrical	1.8797	.5450	27.0
Electric and electronic equipment	1.8483	.6098	31.9
Motor vehicles and equipment	1.5090	.2750	13.1
Transportation equipment, except motor vehicles	1.9334	.5267	25.1
Instruments and related products	1.7904	.5594	28.6
Miscellaneous manufacturing industries	1.9081	.5473	40.3
Transportation, communication, and utilities:*			
Transportation	2.0194	.7588	39.1
Communication	1.5136	.4190	20.0
Electric, gas, water, and sanitary services	1.4708	.2589	12.0
Wholesale and retail trade:			
Wholesale trade	1.8431	.6512	36.6
Retail trade	1.8694	.7485	55.1
Finance, insurance, and real estate:			
Finance	1.8078	.5605	32.8
Insurance	2.0953	.7097	39.9
Real estate	1.3051	.1203	15.4
Services:			
Hotels and lodging places and amusements	1.8780	.5939	77.0
Personal services	1.8159	.7099	75.4
Business services	1.8755	.7758	57.7
Eating and drinking places	2.0942	.6096	70.2
Health services	1.9824	.8773	49.2
Miscellaneous services	1.9394	.6849	45.2
Households	1.0709	.3299	24.8

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.0202	0.4769	46.6
Forestry and fishery products	1.6460	.2904	25.2
Mining:			
Coal mining	2.1681	.6406	27.7
Crude petroleum and natural gas	1.5192	.2431	11.6
Miscellaneous mining	2.0131	.5748	31.5
Construction:			
New construction	2.5037	.7945	43.0
Maintenance and repair construction	2.4681	.8823	47.2
Manufacturing:			
Food and kindred products and tobacco	2.1334	.4399	25.6
Textile mill products	2.0623	.4847	30.2
Apparel	2.3339	.6486	47.9
Paper and allied products	2.1740	.5074	24.4
Printing and publishing	2.3241	.6945	37.9
Chemicals and petroleum refining	1.8633	.3066	14.1
Rubber and leather products	2.3066	.5827	32.0
Lumber and wood products and furniture	2.1423	.5935	34.1
Stone, clay, and glass products	2.2529	.6434	31.0
Primary metal industries	2.2874	.5843	25.6
Fabricated metal products	2.4338	.6611	31.4
Machinery, except electrical	2.3559	.6844	32.2
Electric and electronic equipment	2.3234	.6864	33.2
Motor vehicles and equipment	2.3453	.5348	24.2
Transportation equipment, except motor vehicles	2.4621	.6997	30.9
Instruments and related products	2.2202	.6905	33.6
Miscellaneous manufacturing industries	2.3714	.6125	33.5
Transportation, communication, and utilities:*			
Transportation	2.2394	.8225	41.0
Communication	1.6230	.4508	19.6
Electric, gas, water, and sanitary services	1.9585	.3276	14.6
Wholesale and retail trade:			
Wholesale trade	1.9848	.6870	36.6
Retail trade	2.0428	.7951	61.1
Finance, insurance, and real estate:			
Finance	1.9796	.6397	34.6
Insurance	2.1568	.6762	35.0
Real estate	1.3719	.1388	9.5
Services:			
Hotels and lodging places and amusements	2.0583	.6382	59.8
Personal services	2.0843	.7777	74.6
Business services	2.0630	.8378	56.2
Eating and drinking places	2.2200	.6354	71.6
Health services	2.2631	.9328	49.8
Miscellaneous services	2.2385	.7614	46.9
Households	1.2696	.3703	24.8

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

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	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.6832	0.6276	65.0
Forestry and fishery products	1.7810	.6818	68.2
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.3493	.2054	11.7
Miscellaneous mining	1.6018	.4873	29.3
Construction:			
New construction	1.9422	.6605	40.0
Maintenance and repair construction	1.9344	.7650	45.8
Manufacturing:			
Food and kindred products and tobacco	1.5638	.3295	20.7
Textile mill products	2.1113	.5156	32.3
Apparel	2.2900	.6466	45.7
Paper and allied products	1.5466	.3787	22.2
Printing and publishing	1.7436	.5811	34.3
Chemicals and petroleum refining	1.7902	.3857	20.4
Rubber and leather products	1.9416	.5279	31.0
Lumber and wood products and furniture	1.7456	.5064	32.0
Stone, clay, and glass products	1.8079	.5621	28.9
Primary metal industries	1.8376	.3921	20.5
Fabricated metal products	1.7199	.5029	28.5
Machinery, except electrical	1.8159	.6156	32.4
Electric and electronic equipment	1.9182	.6271	34.8
Motor vehicles and equipment	1.7110	.4769	23.9
Transportation equipment, except motor vehicles	1.7508	.6494	31.9
Instruments and related products	1.9104	.6035	34.8
Miscellaneous manufacturing industries	1.7379	.4527	29.4
Transportation, communication, and utilities:*			
Transportation	1.8036	.7576	45.3
Communication	1.4920	.4255	19.1
Electric, gas, water, and sanitary services	1.5209	.2087	10.3
Wholesale and retail trade:			
Wholesale trade	1.7267	.6348	36.9
Retail trade	1.7712	.7444	59.8
Finance, insurance, and real estate:			
Finance	1.7443	.5876	33.1
Insurance	2.1172	.7043	38.3
Real estate	1.2814	.1172	8.8
Services:			
Hotels and lodging places and amusements	1.7442	.5531	56.0
Personal services	1.8064	.7104	72.4
Business services	1.7788	.7794	57.5
Eating and drinking places	1.7642	.5428	65.2
Health services	1.9294	.8646	53.2
Miscellaneous services	1.8633	.7065	47.6
Households	.9547	.3107	23.2

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.8934	0.5412	74.3
Forestry and fishery products	1.6651	.3121	36.2
Mining:			
Coal mining	1.6558	.5014	47.3
Crude petroleum and natural gas	1.4646	.2273	15.1
Miscellaneous mining	1.7991	.5165	31.4
Construction:			
New construction	2.2228	.7249	48.4
Maintenance and repair construction	2.1619	.8150	53.9
Manufacturing:			
Food and kindred products and tobacco	2.1428	.4401	39.9
Textile mill products	2.7121	.6382	43.5
Apparel	2.6766	.7092	57.0
Paper and allied products	2.1521	.5223	27.9
Printing and publishing	1.9635	.6180	41.4
Chemicals and petroleum refining	2.0123	.4696	23.9
Rubber and leather products	2.0094	.5225	28.5
Lumber and wood products and furniture	2.3169	.5778	43.0
Stone, clay, and glass products	2.0217	.6021	34.1
Primary metal industries	1.7852	.4031	20.8
Fabricated metal products	1.8268	.5004	28.9
Machinery, except electrical	1.8913	.5649	31.8
Electric and electronic equipment	1.9682	.5953	36.2
Motor vehicles and equipment	1.8136	.4997	27.2
Transportation equipment, except motor vehicles	1.9979	.6936	37.8
Instruments and related products	1.9722	.6064	36.7
Miscellaneous manufacturing industries	2.0675	.5759	41.8
Transportation, communication, and utilities:*			
Transportation	2.0039	.7837	44.2
Communication	1.5086	.4213	21.1
Electric, gas, water, and sanitary services	1.3956	.2403	12.4
Wholesale and retail trade:			
Wholesale trade	1.7920	.6396	40.1
Retail trade	1.8501	.7472	64.5
Finance, insurance, and real estate:			
Finance	1.7317	.5321	34.2
Insurance	1.9845	.6833	38.9
Real estate	1.3720	.1445	12.0
Services:			
Hotels and lodging places and amusements	1.9155	.6109	66.9
Personal services	1.8857	.7161	81.3
Business services	1.8367	.7779	63.2
Eating and drinking places	1.9505	.5735	70.1
Health services	2.0048	.8776	50.1
Miscellaneous services	1.9516	.6992	49.0
Households	1.0431	.3191	26.1

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.5844	0.5363	43.9
Forestry and fishery products	1.8135	.3227	26.2
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.3395	.2035	12.8
Miscellaneous mining	1.6280	.4531	24.4
Construction:			
New construction	1.9103	.6411	46.3
Maintenance and repair construction	1.8778	.7449	53.7
Manufacturing:			
Food and kindred products and tobacco	3.0278	.5343	39.4
Textile mill products	1.4172	.3314	72.3
Apparel	1.4682	.3985	32.9
Paper and allied products	1.4352	.3564	21.0
Printing and publishing	1.6982	.5726	46.7
Chemicals and petroleum refining	1.4799	.2985	18.5
Rubber and leather products	1.6252	.4643	32.1
Lumber and wood products and furniture	1.7365	.4589	33.5
Stone, clay, and glass products	1.9563	.5408	33.6
Primary metal industries	1.7350	.3537	23.1
Fabricated metal products	1.5122	.4171	25.4
Machinery, except electrical	1.7034	.4957	32.4
Electric and electronic equipment	1.6492	.4694	34.2
Motor vehicles and equipment	1.5071	.3936	23.0
Transportation equipment, except motor vehicles	1.6062	.4183	25.0
Instruments and related products	1.6360	.4858	28.7
Miscellaneous manufacturing industries	1.6569	.4648	37.3
Transportation, communication, and utilities:*			
Transportation	1.8958	.7882	47.5
Communication	1.4658	.4107	22.4
Electric, gas, water, and sanitary services	1.4257	.2272	11.8
Wholesale and retail trade:			
Wholesale trade	1.7565	.6361	42.2
Retail trade	1.7814	.7398	66.4
Finance, insurance, and real estate:			
Finance	1.7010	.5330	34.8
Insurance	2.0099	.6965	43.8
Real estate	1.2701	.1115	14.2
Services:			
Hotels and lodging places and amusements	1.8236	.5765	98.4
Personal services	1.7767	.7288	84.4
Business services	1.7761	.7515	63.3
Eating and drinking places	2.0525	.5865	84.9
Health services	1.9047	.8648	58.8
Miscellaneous services	1.9057	.7007	54.0
Households	1.0317	.3241	29.1

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.2146	0.5913	80.2
Forestry and fishery products	1.7746	.3347	54.4
Mining:			
Coal mining	1.9431	.5823	28.6
Crude petroleum and natural gas	1.5017	.2421	14.0
Miscellaneous mining	1.8726	.5277	29.5
Construction:			
New construction	2.3872	.7709	49.4
Maintenance and repair construction	2.3557	.8649	55.4
Manufacturing:			
Food and kindred products and tobacco	2.3968	.4824	38.4
Textile mill products	2.8084	.6745	45.4
Apparel	2.7637	.7571	59.3
Paper and allied products	2.3572	.5688	30.0
Printing and publishing	2.3166	.7234	44.0
Chemicals and petroleum refining	2.1757	.4922	25.0
Rubber and leather products	2.2004	.6006	35.6
Lumber and wood products and furniture	2.2516	.6442	44.3
Stone, clay, and glass products	2.1982	.6669	35.6
Primary metal industries	2.1662	.5041	25.2
Fabricated metal products	2.0378	.5885	32.8
Machinery, except electrical	2.1623	.6038	33.0
Electric and electronic equipment	2.1322	.5847	34.0
Motor vehicles and equipment	2.3006	.5571	28.8
Transportation equipment, except motor vehicles	2.1760	.6362	33.2
Instruments and related products	2.1435	.6597	38.0
Miscellaneous manufacturing industries	2.2821	.6596	42.7
Transportation, communication, and utilities:*			
Transportation	2.1344	.8045	42.2
Communication	1.6716	.4655	23.7
Electric, gas, water, and sanitary services	1.8027	.4006	20.2
Wholesale and retail trade:			
Wholesale trade	1.9852	.6906	40.3
Retail trade	2.0171	.7921	63.1
Finance, insurance, and real estate:			
Finance	1.9363	.6149	34.9
Insurance	2.2057	.7358	40.4
Real estate	1.3888	.1486	12.4
Services:			
Hotels and lodging places and amusements	2.0952	.6687	60.2
Personal services	2.0609	.7761	73.6
Business services	2.0382	.8134	58.6
Eating and drinking places	2.3351	.6631	70.8
Health services	2.2489	.9434	52.3
Miscellaneous services	2.2325	.7341	46.8
Households	1.3129	.3961	29.2

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.7483	0.5977	57.9
Forestry and fishery products	2.0014	.4528	43.7
Mining:			
Coal mining	1.8456	.5400	21.7
Crude petroleum and natural gas	1.6425	.2637	12.3
Miscellaneous mining	2.0494	.5384	27.0
Construction:			
New construction	2.5263	.7937	43.1
Maintenance and repair construction	2.4510	.8696	46.9
Manufacturing:			
Food and kindred products and tobacco	2.5682	.4989	33.7
Textile mill products	1.9161	.4417	27.9
Apparel	1.8755	.5351	38.9
Paper and allied products	2.1393	.5015	24.0
Printing and publishing	2.1117	.6481	37.0
Chemicals and petroleum refining	2.1672	.3092	13.9
Rubber and leather products	2.2672	.5390	28.6
Lumber and wood products and furniture	2.0866	.5491	33.0
Stone, clay, and glass products	2.3691	.6275	31.7
Primary metal industries	2.0885	.4624	20.9
Fabricated metal products	2.0500	.5318	26.4
Machinery, except electrical	2.0598	.5790	27.3
Electric and electronic equipment	2.2161	.6921	33.3
Motor vehicles and equipment	1.6993	.3409	15.4
Transportation equipment, except motor vehicles	2.1239	.6251	28.2
Instruments and related products	2.0822	.6481	32.3
Miscellaneous manufacturing industries	2.1503	.5882	36.2
Transportation, communication, and utilities:*			
Transportation	2.3358	.7829	37.9
Communication	1.7009	.4716	20.8
Electric, gas, water, and sanitary services	2.0602	.3067	13.7
Wholesale and retail trade:			
Wholesale trade	2.0989	.7155	36.2
Retail trade	2.1461	.8167	56.1
Finance, insurance, and real estate:			
Finance	2.0753	.6283	31.3
Insurance	2.4305	.8228	42.0
Real estate	1.4762	.1747	11.3
Services:			
Hotels and lodging places and amusements	2.2421	.6898	57.3
Personal services	2.1268	.7897	74.7
Business services	2.1465	.8476	51.9
Eating and drinking places	2.3988	.6682	64.2
Health services	2.3263	.9601	50.2
Miscellaneous services	2.1907	.7331	40.8
Households	1.3507	.3882	25.2

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.1388	0.4395	57.9
Forestry and fishery products	1.7561	.6466	72.4
Mining:			
Coal mining	1.9629	.5843	26.0
Crude petroleum and natural gas	1.5366	.2420	13.6
Miscellaneous mining	2.0444	.5650	26.7
Construction:			
New construction	2.2522	.7296	45.4
Maintenance and repair construction	2.1536	.8041	49.2
Manufacturing:			
Food and kindred products and tobacco	2.4042	.4468	39.7
Textile mill products	1.5381	.3661	36.1
Apparel	1.6508	.4798	42.5
Paper and allied products	1.5596	.3693	20.6
Printing and publishing	1.8134	.5818	40.4
Chemicals and petroleum refining	1.9551	.2806	15.0
Rubber and leather products	1.7525	.4517	28.7
Lumber and wood products and furniture	1.7771	.4983	34.6
Stone, clay, and glass products	2.2453	.5947	32.5
Primary metal industries	2.3640	.5054	23.9
Fabricated metal products	2.0959	.5570	30.4
Machinery, except electrical	2.0731	.5933	31.9
Electric and electronic equipment	2.0399	.6511	37.6
Motor vehicles and equipment	1.7999	.4453	21.8
Transportation equipment, except motor vehicles	1.9402	.6187	30.8
Instruments and related products	1.8268	.5533	33.3
Miscellaneous manufacturing industries	1.8659	.5216	38.5
Transportation, communication, and utilities:*			
Transportation	2.0855	.7775	40.9
Communication	1.6046	.4497	23.0
Electric, gas, water, and sanitary services	2.0468	.3029	14.8
Wholesale and retail trade:			
Wholesale trade	1.9003	.6684	40.5
Retail trade	1.9430	.7697	63.3
Finance, insurance, and real estate:			
Finance	1.9121	.6027	37.5
Insurance	2.0027	.6918	41.4
Real estate	1.3702	.1413	15.8
Services:			
Hotels and lodging places and amusements	2.0141	.6317	69.4
Personal services	1.9148	.7198	88.0
Business services	1.9427	.7990	62.2
Eating and drinking places	2.0802	.5972	80.7
Health services	2.0703	.9012	54.9
Miscellaneous services	1.9616	.6751	43.2
Households	1.1134	.3306	27.2

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table 8.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.7652	0.3779	40.2
Forestry and fishery products	1.6197	.2806	27.9
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	0	0	0
Miscellaneous mining	1.5193	.4463	26.9
Construction:			
New construction	1.8398	.6189	44.5
Maintenance and repair construction	1.8002	.7144	51.0
Manufacturing:			
Food and kindred products and tobacco	2.0441	.3404	27.8
Textile mill products	1.6683	.3982	27.0
Apparel	1.6957	.4839	40.5
Paper and allied products	1.8128	.4084	24.2
Printing and publishing	1.8903	.5732	38.5
Chemicals and petroleum refining	1.4964	.3240	19.9
Rubber and leather products	1.5996	.4211	27.6
Lumber and wood products and furniture	1.9602	.5348	43.2
Stone, clay, and glass products	1.7136	.5163	31.3
Primary metal industries	1.4641	.3113	17.4
Fabricated metal products	1.6156	.5359	28.3
Machinery, except electrical	1.6080	.5436	30.6
Electric and electronic equipment	1.7390	.5615	28.3
Motor vehicles and equipment	1.4858	.4006	19.9
Transportation equipment, except motor vehicles	1.7093	.5492	27.8
Instruments and related products	1.6623	.5910	33.1
Miscellaneous manufacturing industries	1.7226	.4717	39.1
Transportation, communication, and utilities:*			
Transportation	1.7471	.7474	45.1
Communication	1.4229	.3984	19.6
Electric, gas, water, and sanitary services	1.2886	.2053	10.9
Wholesale and retail trade:			
Wholesale trade	1.6656	.6051	39.4
Retail trade	1.7002	.7084	61.9
Finance, insurance, and real estate:			
Finance	1.6377	.5577	36.1
Insurance	1.9566	.6953	40.2
Real estate	1.2863	.1191	10.8
Services:			
Hotels and lodging places and amusements	1.7127	.5608	67.5
Personal services	1.6707	.6878	89.5
Business services	1.7206	.7745	68.0
Eating and drinking places	1.6769	.4997	62.3
Health services	1.7813	.8122	54.4
Miscellaneous services	1.7821	.6799	53.1
Households	.8670	.2781	23.5

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.9135	0.4791	58.1
Forestry and fishery products	1.6110	.3104	45.0
Mining:			
Coal mining	1.9598	.5936	26.4
Crude petroleum and natural gas	1.4850	.2340	11.8
Miscellaneous mining	1.8040	.5227	29.5
Construction:			
New construction	2.2847	.7518	45.6
Maintenance and repair construction	2.1489	.8148	49.6
Manufacturing:			
Food and kindred products and tobacco	2.0126	.3534	25.2
Textile mill products	2.5067	.6194	39.3
Apparel	2.6226	.7300	56.1
Paper and allied products	2.0646	.5203	26.1
Printing and publishing	2.1431	.6681	37.5
Chemicals and petroleum refining	1.8153	.4503	21.3
Rubber and leather products	1.9430	.5213	28.3
Lumber and wood products and furniture	2.2084	.6204	42.1
Stone, clay, and glass products	2.0482	.5660	30.9
Primary metal industries	1.7103	.4133	19.1
Fabricated metal products	1.8138	.5223	26.4
Machinery, except electrical	1.8565	.5483	28.5
Electric and electronic equipment	2.0120	.6407	31.7
Motor vehicles and equipment	1.7525	.3975	19.4
Transportation equipment, except motor vehicles	1.9638	.7193	34.3
Instruments and related products	1.8647	.5734	32.7
Miscellaneous manufacturing industries	2.0208	.5988	37.6
Transportation, communication, and utilities:*			
Transportation	2.0036	.7420	37.0
Communication	1.6278	.4607	20.9
Electric, gas, water, and sanitary services	1.6187	.2889	13.7
Wholesale and retail trade:			
Wholesale trade	1.9340	.6823	36.6
Retail trade	1.9877	.7877	59.1
Finance, insurance, and real estate:			
Finance	1.9420	.6010	33.9
Insurance	2.0625	.6934	36.9
Real estate	1.4025	.1549	11.5
Services:			
Hotels and lodging places and amusements	2.0174	.6474	58.7
Personal services	1.9924	.7682	74.4
Business services	2.0172	.8274	50.1
Eating and drinking places	2.1403	.6102	66.6
Health services	2.1365	.9233	49.6
Miscellaneous services	2.0981	.7188	42.6
Households	1.1898	.3595	25.3

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.0683	0.5763	38.4
Forestry and fishery products	1.9181	.6111	40.2
Mining:			
Coal mining	1.7200	.5256	21.4
Crude petroleum and natural gas	1.4743	.2343	12.3
Miscellaneous mining	1.8108	.5283	29.0
Construction:			
New construction	2.2659	.7427	39.7
Maintenance and repair construction	2.1375	.8097	42.5
Manufacturing:			
Food and kindred products and tobacco	2.2151	.4821	27.2
Textile mill products	1.5806	.3956	30.6
Apparel	1.6451	.4801	35.2
Paper and allied products	2.1826	.5368	24.2
Printing and publishing	2.1790	.7004	38.5
Chemicals and petroleum refining	1.7118	.2936	13.5
Rubber and leather products	1.8123	.4644	25.3
Lumber and wood products and furniture	2.4191	.6231	33.2
Stone, clay, and glass products	2.0913	.5949	29.5
Primary metal industries	1.9462	.3865	16.7
Fabricated metal products	1.8637	.4755	23.0
Machinery, except electrical	1.8097	.5424	25.8
Electric and electronic equipment	1.8854	.6217	31.0
Motor vehicles and equipment	1.5081	.3002	13.0
Transportation equipment, except motor vehicles	2.0140	.6602	28.5
Instruments and related products	1.8521	.5845	28.6
Miscellaneous manufacturing industries	1.9499	.5662	36.6
Transportation, communication, and utilities:*			
Transportation	2.1950	.7774	37.4
Communication	1.5763	.4471	19.9
Electric, gas, water, and sanitary services	1.5933	.3076	13.9
Wholesale and retail trade:			
Wholesale trade	1.9227	.6841	36.4
Retail trade	1.9452	.7823	53.2
Finance, insurance, and real estate:			
Finance	1.9073	.6182	32.5
Insurance	2.2187	.7657	40.6
Real estate	1.3811	.1488	14.1
Services:			
Hotels and lodging places and amusements	1.9694	.6304	63.7
Personal services	1.8812	.7544	75.6
Business services	1.9731	.8188	53.4
Eating and drinking places	2.2071	.6469	68.5
Health services	2.0844	.9034	52.2
Miscellaneous services	2.0227	.7158	44.5
Households	1.1494	.3553	24.7

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.4508	0.3288	50.1
Forestry and fishery products	1.3797	.2208	28.0
Mining:			
Coal mining	1.7238	.5214	21.2
Crude petroleum and natural gas	1.3475	.1939	9.1
Miscellaneous mining	1.6133	.4699	31.0
Construction:			
New construction	1.8588	.6161	37.6
Maintenance and repair construction	1.8232	.7173	43.4
Manufacturing:			
Food and kindred products and tobacco	1.6924	.3592	26.4
Textile mill products	1.4653	.4288	33.0
Apparel	1.4664	.4313	38.1
Paper and allied products	1.6944	.4047	22.9
Printing and publishing	1.5145	.4911	32.6
Chemicals and petroleum refining	1.8936	.3593	15.9
Rubber and leather products	1.8259	.5196	37.9
Lumber and wood products and furniture	1.9661	.4931	38.2
Stone, clay, and glass products	1.8355	.5797	30.8
Primary metal industries	1.7467	.4121	16.9
Fabricated metal products	1.8358	.4943	24.5
Machinery, except electrical	1.6977	.5053	25.8
Electric and electronic equipment	1.7322	.4838	23.8
Motor vehicles and equipment	1.6750	.4347	20.0
Transportation equipment, except motor vehicles	1.7336	.4898	22.3
Instruments and related products	1.6778	.5712	29.9
Miscellaneous manufacturing industries	1.7568	.5044	38.8
Transportation, communication, and utilities:*			
Transportation	1.7468	.7033	33.7
Communication	1.3585	.3771	17.2
Electric, gas, water, and sanitary services	1.8578	.2445	11.2
Wholesale and retail trade:			
Wholesale trade	1.5811	.5746	33.4
Retail trade	1.6250	.6821	57.4
Finance, insurance, and real estate:			
Finance	1.5152	.4924	29.8
Insurance	1.6809	.6107	31.9
Real estate	1.2154	.0910	7.4
Services:			
Hotels and lodging places and amusements	1.5896	.4826	57.2
Personal services	1.6693	.6561	70.1
Business services	1.5781	.6658	50.2
Eating and drinking places	1.6252	.4914	63.8
Health services	1.7185	.7873	42.8
Miscellaneous services	1.6986	.6318	44.0
Households	.7888	.2459	19.2

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	2.6708	0.5990	56.3
Forestry and fishery products	1.8699	.3645	33.1
Mining:			
Coal mining	0	0	0
Crude petroleum and natural gas	1.3892	.2123	11.5
Miscellaneous mining	1.8661	.5383	29.1
Construction:			
New construction	2.2261	.7178	42.8
Maintenance and repair construction	2.2167	.8222	48.5
Manufacturing:			
Food and kindred products and tobacco	2.7885	.5284	37.6
Textile mill products	1.6855	.4321	27.4
Apparel	1.7478	.4951	35.6
Paper and allied products	2.0601	.4959	24.4
Printing and publishing	2.2004	.6602	39.1
Chemicals and petroleum refining	1.8574	.3727	19.7
Rubber and leather products	1.9881	.5129	30.1
Lumber and wood products and furniture	2.1028	.5643	35.0
Stone, clay, and glass products	1.9180	.5416	29.4
Primary metal industries	1.7999	.5155	25.7
Fabricated metal products	1.8248	.4986	25.8
Machinery, except electrical	2.1431	.6046	29.9
Electric and electronic equipment	1.9539	.5854	30.7
Motor vehicles and equipment	2.2668	.4774	22.8
Transportation equipment, except motor vehicles	2.1236	.6116	28.5
Instruments and related products	1.9735	.5925	32.7
Miscellaneous manufacturing industries	2.0412	.5889	36.3
Transportation, communication, and utilities:*			
Transportation	2.0061	.8022	43.9
Communication	1.5219	.4220	20.1
Electric, gas, water, and sanitary services	1.4237	.2145	10.3
Wholesale and retail trade:			
Wholesale trade	1.8737	.6591	38.0
Retail trade	1.9071	.7639	64.2
Finance, insurance, and real estate:			
Finance	1.8143	.5749	34.6
Insurance	1.9732	.6019	33.5
Real estate	1.2913	.1122	10.3
Services:			
Hotels and lodging places and amusements	1.9690	.6235	77.4
Personal services	1.9106	.7560	85.6
Business services	1.9248	.8087	62.1
Eating and drinking places	2.2866	.6360	79.3
Health services	2.0400	.8944	53.5
Miscellaneous services	2.1138	.7329	50.8
Households	1.1629	.3408	26.3

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Table B.--Total Multipliers, by Industry Aggregation, for Output, Earnings, and Employment

	Output/1/ (dollars)	Earnings/2/ (dollars)	Employment/3/ (number of jobs)
Agriculture, forestry, and fisheries:			
Agricultural products and agricultural, forestry, and fishery services	1.9356	0.3059	56.9
Forestry and fishery products	1.5628	.2535	41.2
Mining:			
Coal mining	1.6823	.5049	19.2
Crude petroleum and natural gas	1.3654	.1989	10.0
Miscellaneous mining	1.6595	.3737	16.7
Construction:			
New construction	1.7620	.5830	34.6
Maintenance and repair construction	1.7013	.6750	39.6
Manufacturing:			
Food and kindred products and tobacco	2.1772	.3495	33.4
Textile mill products	0	0	0
Apparel	1.3617	.3974	34.0
Paper and allied products	1.4036	.3475	32.1
Printing and publishing	1.5610	.5211	35.4
Chemicals and petroleum refining	1.7854	.1800	8.5
Rubber and leather products	1.4430	.3604	29.0
Lumber and wood products and furniture	1.8343	.4460	29.4
Stone, clay, and glass products	2.0542	.4948	25.6
Primary metal industries	1.7643	.4542	20.8
Fabricated metal products	1.4657	.3510	18.3
Machinery, except electrical	1.4651	.4246	22.1
Electric and electronic equipment	1.4716	.4766	37.5
Motor vehicles and equipment	1.3378	.2875	16.2
Transportation equipment, except motor vehicles	1.5097	.3897	22.4
Instruments and related products	1.4829	.5059	30.5
Miscellaneous manufacturing industries	1.5165	.4796	45.4
Transportation, communication, and utilities:*			
Transportation	1.7842	.6570	31.9
Communication	1.3750	.3799	18.6
Electric, gas, water, and sanitary services	1.8886	.2687	11.3
Wholesale and retail trade:			
Wholesale trade	1.6231	.5826	32.2
Retail trade	1.6381	.6802	53.3
Finance, insurance, and real estate:			
Finance	1.5525	.4971	28.3
Insurance	1.6955	.6876	44.4
Real estate	1.2481	.1039	11.0
Services:			
Hotels and lodging places and amusements	1.6622	.5394	90.4
Personal services	1.6008	.6524	76.7
Business services	1.5773	.6446	44.5
Eating and drinking places	1.5645	.4717	64.4
Health services	1.6837	.7796	42.3
Miscellaneous services	1.6740	.6200	41.6
Households	.7649	.2329	19.0

* Includes government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

2. Each entry in column 2 represents the total dollar change in earnings of households employed by all row industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.

3. Each entry in column 3 represents the total change in number of jobs in all row industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.

Appendix C. Detailed Industries for Which Multipliers are Available (one table)

TABLE C.—Industry Classification of the 1977 Input-Output Tables[1]

The titles in bold face represent the groupings of industries used for the summary version of the 1977 tables.

Industry number and title	Related Census-SIC codes (1977 edition)
AGRICULTURE, FORESTRY, AND FISHERIES	
1 Livestock and livestock products	
1.0100 Dairy farm products	0241, pt. 0191, pt. 0259, pt. 0291.
1.0200 Poultry and eggs	025 (excl. 0254 and pt. 0259), pt. 0191, pt. 0219, pt. 0291.
1.0301 Meat animals	021 (excl. pt. 0219), pt. 0191, pt. 0259, pt 0291.
1.0302 Miscellaneous livestock	027 (excl. pt. 0279), pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2 Other agricultural products	
2.0100 Cotton	0131, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2.0201 Food grains	pt. 011, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2.0202 Feed grains	pt. 011, pt. 0139, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2.0203 Grass seeds	pt. 0139, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2.0300 Tobacco	0132, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2.0401 Fruits	pt. 017, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2.0402 Tree nuts	0173, pt. 0179, pt. 0191, pt. 0219, pt. 0259, pt 0291.
2.0501 Vegetables	0134, 0161, pt. 0119, pt. 0139, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2.0502 Sugar crops	0133, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2.0503 Miscellaneous crops	pt. 0119, pt. 0139, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2.0600 Oil bearing crops	0116, pt. 0119, pt. 013, pt. 0173, pt. 0219, pt. 0259, pt. 0291.
2.0701 Forest products	pt. 018, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
2.0702 Greenhouse and nursery products	pt. 018, pt. 0191, pt. 0219, pt. 0259, pt. 0291.
3 Forestry and fishery products	
3.0001 Forestry products	081–4, 097.
3.0002 Commercial fishing	091.
4 Agricultural, forestry, and fishery services	
4.0001 Agricultural, forestry, and fishery services	0254, 07 (excl. 074, and 078), 085, 092, pt. 0279.
4.0002 Landscape and horticultural services	078.
MINING	
5 Iron and ferroalloy ores mining	
5.0000 Iron and ferroalloy ores mining	101, 106.
6 Nonferrous metal ores mining	
6.0100 Copper ore mining	102.
6.0200 Nonferrous metal ores mining, except copper	103–5, pt. 108, 109.
7 Coal mining	
7.0000 Coal mining	1111, pt. 1112, 1211, pt. 1213.
8 Crude petroleum and natural gas	
8.0000 Crude petroleum and natural gas	131, 132.
9 Stone and clay mining and quarrying	
9.0001 Dimension, crushed and broken stone mining and quarrying	141–2.
9.0002 Sand and gravel mining	144.
9.0003 Clay, ceramic, and refractory minerals mining	145.
9.0004 Nonmetallic mineral services and miscellaneous minerals mining	pt. 148, 149.
10 Chemical and fertilizer mineral mining	
10.0000 Chemical and fertilizer mineral mining	147.
CONSTRUCTION	
11 New construction	
11.0101 New residential 1-unit structures, nonfarm	pt. 15, pt. 17, pt. 6552.
11.0102 New residential 2–4 unit structured, nonfarm	pt. 15–17.
11.0103 New residential garden apartments	pt. 15–17, pt. 6552.
11.0104 New residential high-rise apartments	pt. 15–17.
11.0105 New residential additions and alterations, nonfarm	pt. 15–17.
11.0106 New hotels and motels	pt. 15–17.
11.0107 New dormitories and other group housing	pt. 15–17.
11.0201 New industrial buildings	pt. 15–17.
11.0202 New office buildings	pt. 15–17.
11.0203 New warehouses	pt. 15–17.
11.0204 New garages and service stations	pt. 15–17.
11.0205 New stores and restaurants	pt. 15–17.
11.0206 New religious buildings	pt. 15–17.
11.0207 New educational buildings	pt. 15–17.
11.0231 New hospitals	pt. 15–17.
11.0232 New residential institutions and other health related facilities	pt. 15–17.
11.0241 New amusement and recreation buildings	pt. 15–17.
11.0250 Other new nonfarm buildings	pt. 15–17.
11.0301 New telephone and telegraph facilities	pt. 16–17.
11.0302 New railroads	pt. 16–17.
11.0303 New electric utility facilities	pt. 16–17.
11.0304 New gas utility facilities	pt. 16–17.
11.0305 New petroleum pipelines	pt. 16–17.
11.0306 New water supply facilities	pt. 16–17.
11.0307 New sewer system facilities	pt. 16–17.
11.0308 New local transit facilities	pt. 16–17.
11.0400 New highways and streets	pt. 16–17.
11.0501 New farm housing units and additions and alterations	pt. 15, pt. 17.
11.0502 New farm service facilities	pt. 15, pt. 17.
11.0601 New petroleum and natural gas well drilling	pt. 138.
11.0602 New petroleum, natural gas, and solid mineral exploration	pt. 108, pt. 1112, pt. 1213, pt. 138, pt. 148.
11.0603 New access structures for solid mineral development	pt. 108, pt. 1112, pt. 1213, pt. 148.
11.0701 New military facilities	pt. 15–17.
11.0702 New dams and reservoirs	pt. 15–17.
11.0703 Other new conservation and development facilities	pt. 15–17.
11.0704 Other new nonbuilding facilities	pt. 15–17.
12 Maintenance and repair construction	
12.0100 Maintenance and repair, residential	pt. 15, pt. 17.
12.0201 Maintenance and repair of other nonfarm buildings	pt. 15–17.
12.0202 Maintenance and repair of farm residential buildings	pt. 1215, pt. 17.
12.0203 Maintenance and repair of farm service facilities	pt. 15, pt. 17.
12.0204 Maintenance and repair of telephone and telegraph facilities	pt. 16–17.
12.0205 Maintenance and repair of railroads	pt. 16–17.
12.0206 Maintenance and repair of electric utility facilities	pt. 16–17.
12.0207 Maintenance and repair of gas utility facilities	pt. 16–17.
12.0208 Maintenance and repair of petroleum pipelines	pt. 16–17.
12.0209 Maintenance and repair of water supply facilities	pt. 16–17.
12.0210 Maintenance and repair of sewer facilities	pt. 16–17.
12.0211 Maintenance and repair of local transit facilities	pt. 16–17.
12.0212 Maintenance and repair of military facilities	pt. 15–17.
12.0213 Maintenance and repair of conservation and development facilities	pt. 15–17.
12.0214 Maintenance and repair of highways and streets	pt. 16–17.
12.0215 Maintenance and repair of petroleum and natural gas wells	pt. 138.
12.0216 Maintenance and repair of other nonbuilding facilities	pt. 15–17.
MANUFACTURING	
13 Ordnance and accessories	
13.0100 Guided missiles and space vehicles	3761.
13.0200 Ammunition, except for small arms, n.e.c	3483.
13.0300 Tank and tank components	3795.
13.0500 Small arms	3484.
13.0600 Small arms ammunition	3482.
13.0700 Other ordnance and accessories	3489.
14 Food and kindred products	
14.0101 Meat packing plants	2011.
14.0102 Sausages and other prepared meats	2013.
14.0103 Poultry dressing plants	2016.
14.0104 Poultry and egg processing	2017.
14.0200 Creamery butter	2021.
14.0300 Cheese, natural and processed	2022.
14.0400 Condensed and evaporated milk	2023.
14.0500 Ice cream and frozen desserts	2024.
14.0600 Fluid milk	2026.
14.0700 Canned and cured sea foods	2091.
14.0800 Canned specialties	2032.
14.0900 Canned fruits and vegetables	2033.
14.1000 Dehydrated food products	2034.
14.1100 Pickles, sauces, and salad dressings	2035.
14.1200 Fresh or frozen packaged fish	2092.
14.1301 Frozen fruits, fruit juices and vegetables	2037.
14.1302 Frozen specialties	2038.
14.1401 Flour and other grain mill products	2041.
14.1402 Cereal breakfast foods	2043.
14.1403 Blended and prepared flour	2045.
14.1501 Dog, cat, and other pet food	2047.
14.1502 Prepared feeds, n.e.c	2048.
14.1600 Rice milling	2044.
14.1700 Wet corn milling	2046.
14.1801 Bread, cake, and related products	2051.
14.1802 Cookies and crackers	2052.
14.1900 Sugar	2061–3.
14.2001 Confectionery products	2065.
14.2002 Chocolate and cocoa products	2066.
14.2003 Chewing gum	2067.
14.2101 Malt beverages	2082.
14.2102 Malt	2083.
14.2103 Wines, brandy, and brandy spirits	2084.
14.2104 Distilled liquor, except brandy	2085.
14.2200 Bottled and canned soft drinks	2086.
14.2300 Flavoring extracts and sirups, n.e.c	2087.
14.2400 Cottonseed oil mills	2074.
14.2500 Soybean oil mills	2075.
14.2600 Vegetable oil mills, n.e.c	2076.
14.2700 Animal and marine fats and oils	2077.
14.2800 Roasted coffee	2095.
14.2900 Shortening and cooking oils	2079.

See footnotes at end of **TABLE C**.

TABLE C.—Industry Classification of the 1977 Input-Output Tables [1]—Continued

Industry number and title		Related Census-SIC codes (1977 edition)
14.3000	Manufactured ice	2097.
14.3100	Macaroni and spaghetti	2098.
14.3200	Food preparations, n.e.c.	2099.
	15 Tobacco manufactures	
15.0101	Cigarettes	211.
15.0102	Cigars	212.
15.0103	Chewing and smoking tobacco	213.
15.0200	Tobacco stemming and redrying	214.
	16 Broad and narrow fabrics, yarn and thread mills	
16.0100	Broadwoven fabric mills and fabric finishing plants	221-3, 2261-2.
16.0200	Narrow fabric mills	224.
16.0300	Yarn mills and finishing of textiles, n.e.c.	2269, 2281-3.
16.0400	Thread mills	2284.
	17 Miscellaneous textile goods and floor coverings	
17.0100	Floor coverings	227.
17.0200	Felt goods, n.e.c.	2291.
17.0300	Lace goods	2292.
17.0400	Padding and upholstery filling	2293.
17.0500	Processed textile waste	2294.
17.0600	Coated fabrics, not rubberized	2295.
17.0700	Tire cord and fabric	2296.
17.0800	Cordage and twine	2298.
17.1001	Nonwoven fabrics	2297.
17.1002	Textile goods, n.e.c.	2299.
	18 Apparel	
18.0101	Women's hosiery, except socks	2251.
18.0102	Hosiery, n.e.c.	2252.
18.0201	Knit outerwear mills	2253.
18.0202	Knit underwear mills	2254.
18.0203	Knitting mills, n.e.c.	2259.
18.0300	Knit fabric mills	2257-8.
18.0400	Apparel made from purchased materials	231-8, 39996.
	19 Miscellaneous fabricated textile products	
19.0100	Curtains and draperies	2391.
19.0200	Housefurnishings, n.e.c.	2392.
19.0301	Textile bags	2393.
19.0302	Canvas and related products	2394.
19.0303	Pleating and stitching	2395.
19.0304	Automotive and apparel trimmings	2396.
19.0305	Schiffli machine embroideries	2397.
19.0306	Fabricated textile products, n.e.c.	2399.
	20 Lumber and wood products, except containers	
20.0100	Logging camps and logging contractors	2411.
20.0200	Sawmills and planing mills, general	2421.
20.0300	Hardwood dimension and flooring mills	2426.
20.0400	Special product sawmills, n.e.c.	2429.
20.0501	Millwork	2431.
20.0502	Wood kitchen cabinets	2434.
20.0600	Veneer and plywood	2435-6.
20.0701	Structural wood members, n.e.c.	2439.
20.0702	Prefabricated wood buildings	2452.
20.0800	Wood preserving	2491.
20.0901	Wood pallets and skids	2448.
20.0902	Particleboard	2492.
20.0903	Wood products, n.e.c.	2499.
	21 Wood containers	
21.0000	Wood containers	2441, 2449.
	22 Household furniture	
22.0101	Wood household furniture	2511.
22.0102	Household furniture, n.e.c.	2519.
22.0103	Wood TV and radio cabinets	2517.
22.0200	Upholstered household furniture	2512.
22.0300	Metal household furniture	2514.
22.0400	Mattresses and bedsprings	2515.
	23 Other furniture and fixtures	
23.0100	Wood office furniture	2521.
23.0200	Metal office furniture	2522.
23.0300	Public building furniture	2531.
23.0400	Wood partitions and fixtures	2541.
23.0500	Metal partitions and fixtures	2542.
23.0600	Drapery hardware and blinds and shades	2591.
23.0700	Furniture and fixtures, n.e.c.	2599.
	24 Paper and allied products, except containers	
24.0100	Pulp mills	261.
24.0200	Paper mills, except building paper	262.
24.0300	Paperboard mills	263.
24.0400	Envelopes	2642.
24.0500	Sanitary paper products	2647.
24.0602	Building paper and board mills	266.
24.0701	Paper coating and glazing	2641.
24.0702	Bags, except textile	2643.
24.0703	Die-cut paper and board	2645.
24.0704	Pressed and molded pulp goods	2646.
24.0705	Stationery products	2648.
24.0706	Converted paper products, n.e.c.	2649.
	25 Paperboard containers and boxes	
25.0000	Paperboard containers and boxes	265.
	26 Printing and publishing	
26.0100	Newspapers	271.
26.0200	Periodicals	272.
26.0301	Book publishing	2731.
26.0302	Book printing	2732.
26.0400	Miscellaneous publishing	274.
26.0501	Commercial printing	2751-2, 2754.
26.0502	Lithographic platemaking and services	2795.
26.0601	Manifold business forms	276.
26.0602	Blankbooks and looseleaf binders	2782.
26.0700	Greeting card publishing	277.
26.0801	Engraving and plate printing	2753.
26.0802	Bookbinding and related work	2789.
26.0803	Typesetting	2791.
26.0804	Photoengraving	2793.
26.0805	Electrotyping and stereotyping	2794.
	27 Chemicals and selected chemical products	
27.0100	Industrial inorganic and organic chemicals	281 (excl. 28195), 2865, 2869.
27.0201	Nitrogenous and phosphatic fertilizers	2873-4
27.0202	Fertilizers, mixing only	2875.
27.0300	Agricultural chemicals, n.e.c.	2879.
27.0401	Gum and wood chemicals	2861.
27.0402	Adhesives and sealants	2891.
27.0403	Explosives	2892.
27.0404	Printing ink	2893.
27.0405	Carbon black	2895.
27.0406	Chemical preparations, n.e.c.	2899.
	28 Plastics and synthetic materials	
28.0100	Plastics materials and resins	2821.
28.0200	Synthetic rubber	2822.
28.0300	Cellulosic man-made fibers	2823.
28.0400	Organic fibers, noncellulosic	2824.
	29 Drugs, cleaning and toilet preparations	
29.0100	Drugs	283.
29.0201	Soap and other detergents	2841.
29.0202	Polishes and sanitation goods	2842.
29.0203	Surface active agents	2843.
29.0300	Toilet preparations	2844.
	30 Paints and allied products	
30.0000	Paints and allied products	285.
	31 Petroleum refining and related industries	
31.0101	Petroleum refining	291.
31.0102	Lubricating oils and greases	2992.
31.0103	Products of petroleum and coal, n.e.c.	2999.
31.0200	Paving mixtures and blocks	2951.
31.0300	Asphalt felts and coatings	2952.
	32 Rubber and miscellaneous plastics products	
32.0100	Tires and inner tubes	301.
32.0200	Rubber and plastics footwear	302.
32.0301	Reclaimed rubber	303.
32.0302	Fabricated rubber products, n.e.c.	306.
32.0400	Miscellaneous plastics products	307.
32.0500	Rubber and plastics hose and belting	304.
	33 Leather tanning and finishing	
33.0001	Leather tanning and finishing	311.
	34 Footwear and other leather products	
34.0100	Boot and shoe cut stock and findings	313.
34.0201	Shoes, except rubber	3143-9.
34.0202	House slippers	3142.
34.0301	Leather gloves and mittens	315.
34.0302	Luggage	316.
34.0303	Women's handbags and purses	3171.
34.0304	Personal leather goods	3172.
34.0305	Leather goods, n.e.c.	319.
	35 Glass and glass products	
35.0100	Glass and glass products, except containers	321, 3229, 323.
35.0200	Glass containers	3221
	36 Stone and clay products	
36.0100	Cement, hydraulic	324.
36.0200	Brick and structural clay tile	3251.
36.0300	Ceramic wall and floor tile	3253.
36.0400	Clay refractories	3255.
36.0500	Structural clay products, n.e.c.	3259.
36.0600	Vitreous plumbing fixtures	3261.
36.0701	Vitreous china food utensils	3262.

See footnotes at end of **TABLE C**

TABLE C.—Industry Classification of the 1977 Input-Output Tables [1]—Continued

Industry number and title		Related Census-SIC codes (1977 edition)
36.0702	Fine earthenware food utensils	3263.
36.0800	Porcelain electrical supplies	3264.
36.0900	Pottery products, n.e.c.	3269.
36.1000	Concrete block and brick	3271.
36.1100	Concrete products, n.e.c.	3272.
36.1200	Ready-mixed concrete	3273.
36.1300	Lime	3274.
36.1400	Gypsum products	3275.
36.1500	Cutstone and stone products	328.
36.1600	Abrasive products	3291.
36.1700	Asbestos products	3292.
36.1800	Gaskets, packing and sealing devices	3293.
36.1900	Minerals, ground or treated	3295.
36.2000	Mineral wool	3296.
36.2100	Nonclay refractories	3297.
36.2200	Nonmetallic mineral products, n.e.c.	3299.
	37 Primary iron and steel manufacturing	
37.0101	Blast furnaces and steel mills	3312.
37.0102	Electrometallurgical products	3313.
37.0103	Steel wire and related products	3315.
37.0104	Cold finishing of steel shapes	3316.
37.0105	Steel pipe and tubes	3317.
37.0200	Iron and steel foundries	332.
37.0300	Iron and steel forgings	3462.
37.0401	Metal heat treating	3398.
37.0402	Primary metal products, n.e.c.	3399.
	38 Primary nonferrous metals manufacturing	
38.0100	Primary copper	3331.
38.0200	Primary lead	3332.
38.0300	Primary zinc	3333.
38.0400	Primary aluminum	3334, 28195.
38.0500	Primary nonferrous metals, n.e.c.	3339.
38.0600	Secondary nonferrous metals	334.
38.0700	Copper rolling and drawing	3351.
38.0800	Aluminum rolling and drawing	3353-5.
38.0900	Nonferrous rolling and drawing, n.e.c.	3356.
38.1000	Nonferrous wire drawing and insulating	3357.
38.1100	Aluminum castings	3361.
38.1200	Brass, bronze, and copper castings	3362.
38.1300	Nonferrous castings, n.e.c.	3369.
38.1400	Nonferrous forgings	3463.
	39 Metal containers	
39.0100	Metal cans	3411.
39.0200	Metal barrels, drums, and pails	3412.
	40 Heating, plumbing, and fabricated structural metal products	
40.0100	Metal sanitary ware	3431.
40.0200	Plumbing fixture fittings and trim	3432.
40.0300	Heating equipment, except electric	3433.
40.0400	Fabricated structural metal	3441.
40.0500	Metal doors, sash, and trim	3442.
40.0600	Fabricated plate work (boiler shops)	3443.
40.0700	Sheet metal work	3444.
40.0800	Architectural metal work	3446.
40.0901	Prefabricated metal buildings	3448.
40.0902	Miscellaneous metal work	3449.
	41 Screw machine products and stampings	
41.0100	Screw machine products and bolts, nuts, rivets, and washers	345.
41.0201	Automotive stampings	3465.
41.0202	Crowns and closures	3466.
41.0203	Metal stampings, n.e.c.	3469.
	42 Other fabricated metal products	
42.0100	Cutlery	3421.
42.0201	Hand and edge tools, n.e.c.	3423.
42.0202	Hand saws and saw blades	3425.
42.0300	Hardware, n.e.c.	3429.
42.0401	Plating and polishing	3471.
42.0402	Metal coating and allied services	3479.
42.0500	Miscellaneous fabricated wire products	3495-6.
42.0700	Steel springs, except wire	3493.
42.0800	Pipe, valves, and pipe fittings	3494, 3498.
42.1000	Metal foil and leaf	3497.
42.1100	Fabricated metal products, n.e.c.	3499.
	43 Engines and turbines	
43.0100	Turbines and turbine generator sets	3511.
43.0200	Internal combustion engines, n.e.c.	3519.
	44 Farm and garden machinery	
44.0001	Farm machinery and equipment	3523.
44.0002	Lawn and garden equipment	3524.
	45 Construction and mining machinery	
45.0100	Construction machinery and equipment	3531.
45.0200	Mining machinery, except oil field	3532.
45.0300	Oil field machinery	3533.

Industry number and title		Related Census-SIC codes (1977 edition)
	46 Materials handling machinery and equipment	
46.0100	Elevators and moving stairways	3534.
46.0200	Conveyors and conveying equipment	3535.
46.0300	Hoists, cranes, and monorails	3536.
46.0400	Industrial trucks and tractors	3537.
	47 Metalworking machinery and equipment	
47.0100	Machine tools, metal cutting types	3541.
47.0200	Machine tools, metal forming types	3542.
47.0300	Special dies and tools and machine tool accessories	3544-5.
47.0401	Power driven hand tools	3546.
47.0402	Rolling mill machinery	3547.
47.0403	Metalworking machinery, n.e.c.	3549.
	48 Special industry machinery and equipment	
48.0100	Food products machinery	3551.
48.0200	Textile machinery	3552.
48.0300	Woodworking machinery	3553.
48.0400	Paper industries machinery	3554.
48.0500	Printing trades machinery	3555.
48.0600	Special industry machinery, n.e.c.	3559.
	49 General industrial machinery and equipment	
49.0100	Pumps and compressors	3561, 3563.
49.0200	Ball and roller bearings	3562.
49.0300	Blowers and fans	3564.
49.0400	Industrial patterns	3565.
49.0500	Power transmission equipment	3566, 3568.
49.0600	Industrial furnaces and ovens	3567.
49.0700	General industrial machinery, n.e.c.	3569.
	50 Miscellaneous machinery, except electrical	
50.0001	Carburetors, pistons, rings, valves	3592.
50.0002	Machinery, except electrical, n.e.c.	3599.
	51 Office, computing, and accounting machines	
51.0101	Electronic computing equipment	3573.
51.0102	Calculating and accounting machines	3574.
51.0300	Scales and balances	3576.
51.0400	Typewriters and office machines, n.e.c.	3572, 3579.
	52 Service industry machines	
52.0100	Automatic merchandising machines	3581.
52.0200	Commercial laundry equipment	3582.
52.0300	Refrigeration and heating equipment	3585.
52.0400	Measuring and dispensing pumps	3586.
52.0500	Service industry machines, n.e.c.	3589.
	53 Electric industrial equipment and apparatus	
53.0100	Instruments to measure electricity	3825.
53.0200	Transformers	3612.
53.0300	Switchgear and switchboard apparatus	3613.
53.0400	Motor and generators	3621.
53.0500	Industrial controls	3622.
53.0600	Welding apparatus, electric	3623.
53.0700	Carbon and graphite products	3624.
53.0800	Electrical industrial apparatus, n.e.c.	3629.
	54 Household appliances	
54.0100	Household cooking equipment	3631.
54.0200	Household refrigerator and freezers	3632.
54.0300	Household laundry equipment	3633.
54.0400	Electric housewares and fans	3634.
54.0500	Household vacuum cleaners	3635.
54.0600	Sewing machines	3636.
54.0700	Household appliances, n.e.c.	3639.
	55 Electric lighting and wiring equipment	
55.0100	Electric lamps	3641.
55.0200	Lighting fixtures and equipment	3645-8.
55.0300	Wiring devices	3643-4.
	56 Radio, TV, and communication equipment	
56.0100	Radio and TV receiving sets	3651.
56.0200	Phonograph records and tapes	3652.
56.0300	Telephone and telegraph apparatus	3661.
56.0400	Radio and TV communication equipment	3662.
	57 Electronic components and accessories	
57.0100	Electron tubes	3671-3.
57.0200	Semiconductors and related devices	3674.
57.0300	Other electronic components	3675-9.
	58 Miscellaneous electrical machinery and supplies	
58.0100	Storage batteries	3691.
58.0200	Primary batteries, dry and wet	3692.
58.0300	X-ray apparatus and tubes	3693.
58.0400	Engine electrical equipment	3694.
58.0500	Electrical equipment and supplies, n.e.c.	3699.

See footnotes at end of **TABLE C**.

TABLE C.—Industry Classification of the 1977 Input-Output Tables[1]—Continued

Industry number and title	Related Census-SIC codes (1977 edition)
59 Motor vehicles and equipment	
59.0100 Truck and bus bodies	3713.
59.0200 Truck trailers	3715.
59.0301 Motor vehicles and car bodies	3711.
59.0302 Motor vehicles parts and accessories	3714.
60 Aircraft and parts	
60.0100 Aircraft	3721.
60.0200 Aircraft and missile engines and engine parts	3724, 3764.
60.0400 Aircraft and missile equipment, n.e.c	3728, 3769.
61 Other transportation equipment	
61.0100 Ship building and repairing	3731.
61.0200 Boat building and repairing	3732.
61.0300 Railroad equipment	374.
61.0500 Motorcycles, bicycles, and parts	375.
61.0601 Travel trailers and campers	3792.
61.0602 Mobile homes	2451.
61.0603 Motor homes (made from purchased materials)	3716.
61.0700 Transportation equipment, n.e.c	3799.
62 Scientific and controlling instruments	
62.0100 Engineering and scientific instruments	3811.
62.0200 Mechanical measuring devices	3823-4, 3829.
62.0300 Environmental controls	3822.
62.0400 Surgical and medical instruments	3841.
62.0500 Surgical appliances and supplies	3842.
62.0600 Dental equipment and supplies	3843.
62.0700 Watches, clocks, and parts	387.
63 Optical, ophthalmic, and photographic equipment	
63.0100 Optical instruments and lenses	383.
63.0200 Ophthalmic goods	385.
63.0300 Photographic equipment and supplies	386.
64 Miscellaneous manufacturing	
64.0101 Jewelry, precious metal	3911.
64.0102 Jewelers' materials and lapidary work	3915.
64.0104 Silverware and plated ware	3914.
64.0105 Costume jewelry	3961.
64.0200 Musical instruments	393.
64.0301 Games, toys, and children's vehicles	3944.
64.0302 Dolls	3942.
64.0400 Sporting and athletic goods, n.e.c	3949.
64.0501 Pens and mechanical pencils	3951.
64.0502 Lead pencils and art goods	3952.
64.0503 Marking devices	3953.
64.0504 Carbon paper and inked ribbons	3955.
64.0600 Artificial trees and flowers	3962.
64.0701 Buttons	3963.
64.0702 Needles, pins, and fasteners	3964.
64.0800 Brooms and brushes	3991.
64.0900 Hard surface floor coverings	3996.
64.1000 Burial caskets and vaults	3995.
64.1100 Signs and advertising displays	3993.
64.1200 Manufacturing industries, n.e.c	3999 (excl. 39996).
TRANSPORTATION, COMMUNICATIONS, AND UTILITIES	
65 Transportation and warehousing [2]	
65.0100 Railroads and related services	40, 474, pt. 4789.
65.0200 Local and suburban transit and interurban highways passenger transportation	41.
65.0300 Motor freight transportation and warehousing	42, pt. 4789.
65.0400 Water transportation	44.
65.0500 Air transportation	45.
65.0600 Pipe lines, except natural gas	46.
65.0701 Freight forwarders and other transportation services	471, 4723, pt. 478.
65.0702 Arrangement of passenger transportation	4722.
66 Communications, except radio and TV	
66.0000 Communications, except radio and TV	48 (excl. 483).
67 Radio and TV broadcasting	
67.0000 Radio and TV broadcasting	483.
68 Electric, gas, water, and sanitary services [2]	
68.0100 Electric services (utilities)	491, pt. 493.
68.0200 Gas production and distribution (utilities)	492, pt. 493.
68.0301 Water supply and sewerage systems	494, 4952.
68.0302 Sanitary services, steam supply, and irrigation systems	495 (excl. 4952), 496-7, pt. 493.
WHOLESALE AND RETAIL TRADE	
69 Wholesale and retail trade	
69.0100 Wholesale trade	50, 51.
69.0200 Retail trade	52-7, 59, 7396, 8042.
FINANCE, INSURANCE, AND REAL ESTATE	
70 Finance and insurance [2]	
70.0100 Banking	60.
70.0200 Credit agencies other than banks	61, 67 (excl. 6732).
70.0300 Security and commodity brokers	62.
70.0400 Insurance carriers	63.
70.0500 Insurance agents, brokers, and services	64.
71 Real estate and rental	
71.0100 Owner-occupied dwellings	Not applicable.
71.0200 Real estate	65-6, (excl. pt. 6552), pt. 1531.
SERVICES	
72 Hotels; personal and repair services (except auto)	
72.0100 Hotels and lodging places	70 (excl. dining).
72.0201 Laundry, cleaning, garment services, and shoe repair	721, 725.
72.0202 Funeral service and crematories	726.
72.0203 Portrait, photographic studios, and other miscellaneous personal services	722, 729.
72.0204 Electrical repair shops	762.
72.0205 Watch, clock, jewelry, and furniture repair	763-4.
72.0300 Beauty and barber shops	723-4.
73 Business services	
73.0101 Miscellaneous repair shops	769.
73.0102 Services to dwellings and other buildings	734.
73.0103 Personnel supply services	736.
73.0104 Computer and data processing services	737.
73.0105 Management and consulting services, testing and research labs	7391-2, 7397.
73.0106 Detective and protective services	7393.
73.0107 Equipment rental and leasing services	7394.
73.0108 Photofinishing labs, photocopy, and commercial photography	7332-3, 7395.
73.0109 Other business services	732, 7331, 7339, 735, 7399.
73.0200 Advertising	731.
73.0301 Legal services	811.
73.0302 Engineering, architectural, and surveying services	8911.
73.0303 Accounting, auditing and bookkeeping, and miscellaneous services, n.e.c	893, 899.
74 Eating and drinking places	
74.0000 Eating and drinking places	58, pt. 70.
75 Automobile repair and services	
75.0001 Automotive rental and leasing, without drivers	751.
75.0002 Automotive repair shops and services	753, 7549.
75.0003 Automobile parking and car washes	752, 7542.
76 Amusements	
76.0100 Motion pictures	78.
76.0201 Theatrical producers (except motion pictures), bands, and entertainers	792.
76.0202 Bowling alleys, billiard and pool establishments	793.
76.0203 Commercial sports, except racing	7941.
76.0204 Racing (including track operations)	7948.
76.0205 Membership sports and recreation clubs	7997.
76.0206 Other amusement and recreation services	791, 799 (excl. 7997).
77 Health, educational, and social services and nonprofit organizations	
77.0100 Doctors and dentists	801-3, 8041.
77.0200 Hospitals	806.
77.0301 Nursing and personal care facilities	805.
77.0302 Other medical and health services, excluding nursing homes	074, 8049, 807-9.
77.0401 Elementary and secondary schools	821.
77.0402 Colleges, universities, and professional schools	822.
77.0403 Libraries, correspondence and vocational schools, and educational services, n.e.c	823-9.
77.0501 Business associations and professional membership organizations	861-2.
77.0502 Labor organizations and civic, social, and fraternal associations	863-4.
77.0503 Religious organizations	866.
77.0504 Other membership organizations	84, 865, 869, 8922, 6732.
77.0600 Job training and related services	8331.
77.0700 Child day care services	8351.
77.0800 Residential care	8361.
77.0900 Social services, n.e.c	8321, 8399.
GOVERNMENT ENTERPRISES	
78 Federal Government enterprises	
78.0100 U.S. Postal Service	4311.
78.0200 Federal electric utilities	pt. 491.
78.0300 Commodity Credit Corporation	pt. 613.
78.0400 Other Federal Government enterprises	several.[3]
79 State and local government enterprises	
79.0100 Local government passenger transit	pt. 41.
79.0200 State and local electric utilities	pt. 491.
79.0300 Other State and local government enterprises	several.[3]

See footnotes at end of **TABLE C**.

TABLE C.—Industry Classification of the 1977 Input-Output Table [1]—Continued

Industry number and title	Related Census-SIC codes (1977 edition)
SPECIAL INDUSTRIES	
80 Noncomparable imports	
80.0000 Noncomparable imports	
81 Scrap, used and secondhand goods	
81.0001 Scrap	
81.0002 Used and secondhand goods	
82 Government industry	
82.0000 Government industry	
83 Rest of world industry	
83.0000 Rest of the world industry	
84 Household industry	
84.0000 Household industry	
85 Inventory valuation adjustment	
85.0000 Inventory valuation adjustment	
VALUE ADDED AND FINAL DEMAND	
V.A. Value added	
87.0000 Value added	
88 Compensation of employees	
88.0000 Compensation of employees	
89 Indirect business taxes	
89.0000 Indirect business taxes	
90 Property-type income	
90.0000 Profit-type income, net interest, and capital consumption allowances	
91 Personal consumption expenditures	
91.0000 Personal consumption expenditures	
92 Gross private fixed investment	
92.0000 Gross private fixed investment	
93 Change in business inventories	
93.0000 Change in business inventories	
94 Exports	
94.0000 Exports	
95 Imports	
95.0000 Imports	
96 Federal Government purchases, national defense	
96.0000 Federal Government purchases, national defense	
97 Federal Government purchases, nondefense	
97.0000 Federal Government purchases, nondefense	
98 State and local government purchases, education	
98.0001 State and local government purchases, elementary and secondary education.	
98.0002 State and local government purchases, higher education	
98.0003 State and local government purchases, other education and libraries.	
99 State and local government purchases, other	
99.1001 State and local government purchases, health and hospitals	
99.1002 State and local government purchases, public assistance and relief.	
99.1003 State and local government purchases, sewerage	
99.1004 State and local government purchases, sanitation	
99.2001 State and local government purchases, police	
99.2002 State and local government purchases, fire	
99.2003 State and local government purchases, correction	
99.3001 State and local government purchases, highways	
99.3002 State and local government purchases, water and air facilities.	
99.3003 State and local government purchases, transit utilities	
99.3004 State and local government purchases, other commerce and transportation.	
99.3005 State and local government purchases, gas and electric utilities.	
99.3006 State and local government purchases, water	
99.3007 State and local government purchases, urban renewal and community facilities.	
99.3008 State and local government purchases, natural and agricultural resources and recreation.	
99.3009 State and local government purchases, other general government.	
OTHER SYMBOLS	
Outputs	
T.I.U. Total intermediate use	
T.F.D. Total final demand	
T.C.O. Total commodity output	
Inputs	
T.I.I. Total intermediate inputs	
V.A. Value added	
T.I.O. Total industry output	

1. The industry classification is usually identical with that for the commodity that is the primary product of the industry. However, for some industries, the primary product, or a component thereof, is the same as the primary product of another industry. In such cases, commodity output is included with the industry most definitively associated with the commodity, usually the largest producer.

2. Excluding government enterprises.

3. In the 1977 SIC, government enterprise activities are generally classified with the similar private activity. In I-O, activities of enterprises are classified in groups 78 and 79 and the corresponding SIC's are shown except for 78.0400 and 79.0300, each of which includes a number of SIC's and several activities for which no comparable SIC exists.

NOTE.—This table originally appeared as appendix B in Interindustry Economics Division (BEA), "The Input-Output Structure of the U.S. Economy, 1977," Survey of Current Business, May 1984.

Appendix D. Industry Aggregations for Which Multipliers Are Available (one table)

Table D.--List of Industry Aggregations for Which Multipliers Are Available

Numerical designation of industry aggregation	Industry aggregation	Numerical designation of component detailed industries/1/
	Agriculture, forestry, and fisheries:	
1.....	Agricultural products and agricultural, forestry, and fishery services	1.0100 - 2.0702, 4.0001 - 4.0002
2.....	Forestry and fishery products	3.0001 - 3.0002
	Mining:	
3.....	Coal mining	7.0000
4.....	Crude petroleum and natural gas	8.0000
5.....	Miscellaneous mining	5.0000, 6.0100 - 6.0200, 9.0001 - 9.0004, 10.0000
	Construction:	
6.....	New construction	11.0101 - 11.0704
7.....	Maintenance and repair construction	12.0100 - 12.0216
	Manufacturing:	
8.....	Food and kindred products and tobacco	14.0101 - 15.0200
9.....	Textile mill products	16.0100 - 18.0300
10.....	Apparel	18.0400 - 19.0306
11.....	Paper and allied products	24.0100 - 25.0000
12.....	Printing and publishing	26.0100 - 26.0805
13.....	Chemicals and petroleum refining	27.0100 - 31.0300
14.....	Rubber and leather products	32.0100 - 34.0305
15.....	Lumber and wood products and furniture	20.0100 - 23.0700
16.....	Stone, clay, and glass products	35.0100 - 36.2200
17.....	Primary metal industries	37.0101 - 38.1400
18.....	Fabricated metal products	13.0200, 13.0500 - 13.0700, 39.0100 - 42.1100
19.....	Machinery, except electrical	43.0100 - 52.0500
20.....	Electric and electronic equipment	53.0100 - 58.0500
21.....	Motor vehicles and equipment	59.0100 - 59.0302
22.....	Transportation equipment, except motor vehicles	13.0100, 13.0300, 60.0100 - 61.0700
23.....	Instruments and related products	62.0100 - 63.0300

Table D.--List of Industry Aggregations for Which Multipliers Are Available--Continued

Numerical designation of industry aggregation	Industry aggregation	Numerical designation of component detailed industries/1/
24.....	Miscellaneous manufacturing industries	64.0101 - 64.1200
	Transportation, communication, and utilities:*	
25.....	Transportation	65.0100 - 65.0702, 78.0100, 79.0100
26.....	Communication	66.0000 - 67.0000
27.....	Electric, gas, water, and sanitary services	68.0100 - 68.0302, 78.0200, 79.0200
	Wholesale and retail trade:	
28.....	Wholesale trade	69.0100
29.....	Retail trade	69.0200
	Finance, insurance, and real estate:	
30.....	Finance	70.0100 - 70.0300
31.....	Insurance	70.0400 - 70.0500
32.....	Real estate	71.0100 - 71.0200
	Services:	
33.....	Hotels and lodging places and amusements	72.0100, 76.0100 - 76.0206
34.....	Personal services	72.0201 - 72.0300
35.....	Business services	73.0101 - 73.0303
36.....	Eating and drinking places	74.0000
37.....	Health services	77.0100 - 77.0302
38.....	Miscellaneous services	75.0001 - 75.0003, 77.0401 - 77.0900, 78.0400, 79.0300
39.....	Households	91.0000

* Includes government enterprises.
1. Appendix C identifies these industries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Economic Analysis Division, Bureau of Economic Analysis.